

# **Urbanisation, Urban Growth and Development in Uttar Pradesh**

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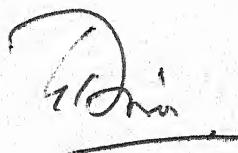
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DECLARATION

This thesis entitled "Urbanisation, Urban Growth and Development in Uttar Pradesh" embodies my original work for submission to Kanpur University for Ph.D. Degree. Further, I declare that this work either in part or in full has not been submitted elsewhere for any degree or diploma or for publication.

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## PREFACE

Economic development is closely linked with increasing degree of urbanisation in any economy. Urbanisation is actually considered as an important force of economic growth. However, it must be understood as an inevitable consequence of historical, demographic and economic trends within the country. A more organised economic activity, higher productivity, better standard of living, higher literacy etc. are some of desirable outcomes and advantages of increasing urbanisation. On the other hand, housing shortage, problem of water supply and sanitation, problem of environment and a host of other problems created due to very high density of population are some of the disadvantages associated with increasing urbanisation.

Because urbanisation in past has been associated with the industrialisation and the development process in affluent countries, urbanisation is inappropriately equated with development in the Third World countries. It is needless to say that rapid urban growth on a massive scale can exist and emerge even without development. Such urbanisation process is merely a process of transfer of rural poverty to an urban environment and therefore results in a concentration of misery. It primarily depends on whether urbanisation is viewed as positive developmental process and is encouraged to create a sound basis for national prosperity or it is left to itself to cause more poverty, uneven development and even underdevelopment.

The principal concern of this study therefore, is to evaluate the cumulative impact of plans and policies on the intersectoral shifts in relation to the process of urbanisation in the economy of Uttar Pradesh which has experienced so many years of planned economic development. The study focuses, in a historical perspective, on the impact of changing economic structures which have produced quantitative structural changes in the urban structures of different regions in Uttar Pradesh. The study also attempts to support arguments with concrete historical examples which reveal that rural-urban relationship instead of becoming integrative and co-ordinating in nature have assumed dichotomous character in the course of development in India.

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## INTRODUCTION

### 1.1 Urbanisation-a Development Challenge:

Every nation strives for development but the objective should be over all development and not economic development in isolation. In other words, the economic progress is an essential component of development but it is not the only one, Development should be perceived as a multi-dimensional process involving economic and social systems (Todaro, 1983). Therefore, need for integration of social and economic objectives has been realised; emphasising that for planning to be effective it has to be "Planning From Below" instead of being only "Planning From The Top" and moreover, for planning to be meaningful it should be 'Planning For The Masses'. (Srinivasmurthy, 1986 : Chapter 1).

The pressing nature of three major development challenges - world poverty, peace, and human settlements-, together with that of rapid total population growth seems to be the main concern of the scholars dealing with the issues related to global development, (Brandt, 1980 : 11). The course of world urban development has therefore created considerable fascination for many social scientists. Thus, in recent decades a vast literature has emerged within the social sciences which specially seeks to examine the manifold historical, contemporary and perspective aspects of the global trend of urbanisation.

The rise of cities and economic development that have taken place during the last century in the western world have for a long time been regarded as two sides of the same coin,

but this notion has come increasingly under fire. Historically, towns, cities, and predominantly urban modes of living have all been treated synonymous with 'development', 'industrialisation' and 'modernisation'. Many of the urban areas, even of the western world, are today increasingly facing problems of atrophy, decay and economic regression in the guise of inner city problems, fiscal bankruptcy and counter-urbanisation (Berry, 1976).

Many developing countries are also experiencing a kind of urbanisation which is not necessarily a result of the economic development. Nevertheless, growth of economic sectors affects the rate of urbanisation considerably. The development of agriculture and industry adds impetus to the demand of urban-based goods and services and migration takes place from rural to urban areas. As a result of which, new urban centres emerge and the existing ones tend to expand (Weitz, 1971 : 111). In this process urbanisation apparently becomes an indicator of economic progress.

The planners perceived that economic expansion requires rapid industrialisation, which in turn, is preferred in cities due to their advantages of large scale economies. This theory that building large cities will itself guarantee economic progress by spreading the benefits of industrialisation to the rural masses has been largely discredited. The tendency of the people to escape from rural destitution to only slightly less extreme urban destitution may hardly be considered as economic progress. The developing countries, thus, are suffering from the

serious implications of these conceptions, often resulting from either the best intentions, or inherited economic structure from the colonial past.

#### 1.2 Urban Experience in India and U.P. :

With population of about 160 million in 1981, India ranks fourth among the countries in the world in terms of absolute size of urban population - the first three being China, U.S.S.R. and U.S.A., in that order. If the level of urbanisation is measured in terms of percentage of urban population, it has increased from 11 per cent in 1901 to 23 per cent in 1981, an increase of only 12 per cent, whereas the actual number of people living in urban areas has increased six-fold during the same period from about 26 million to 160 million. By 2001, it is expected to reach 326 million, constituting more than one-third of the country's projected population of 926 million at that time.<sup>2</sup> The pace of urbanisation has varied from state to state. It is worth noting that some poorer states like U.P., Bihar, and M.P. have urbanised faster than the old industrially advanced states like West Bengal, Tamil Nadu, and Maharashtra.

Though there have been different reasons for acceleration in urban growth in India, the phenomenon of rapid urbanisation has to be understood at regional level (Mohan and Pant 1982). According to Dasgupta (1987), studying urbanisation patterns in different regions separately is essential as different regions had different land tenure system and were subjected to different colonial and post-independence economic

policies pursued by the government. The state of Uttar Pradesh, has been selected for an indepth study because of its diversified nature of urbanisation both class-wise as well as region-wise.<sup>3</sup> Moreover, according to 1981 Census Reports, it is one of the most rapidly urbanising states with maximum number of towns in India.

The Census Reports of Uttar Pradesh reveal that the state registered high rate of urbanisation and urban growth in 1971 and 1981. The decadal percentage growth in 1981 which shows a rise of 60.62 per cent in U.P. has surpassed the national urban population growth rate of 46.39 per cent. In earlier decades, however, U.P. has always stayed below the national decadal percentage growth rate. Of the total population of 110,862,013 of Uttar Pradesh, 19,899,115 persons reside in urban areas thus accounting for 17.95 per cent of the total population. In absolute terms, as far as urbanisation in national context is concerned, Uttar Pradesh occupies second position after Maharashtra, whereas the proportion of urban population in the state places it at fifteenth rank among Twentytwo states of India in 1981. According to 1981 Census Reports, there are as many as 704 towns in U.P., 383 of which are new towns which came into existence during the decade 1971-1981. The decade is thus characterised with unprecedented rise in number of towns. These new towns share as much as 16.29 per cent of total urban population in the state.

To understand the regional variations, a suitable index urban-rural growth differential (URGD) based on data from 1981 Census Reports, has been prepared by Mohan. The value of

this indicator is merely a difference between the rates of annual population growth in urban and rural areas. Urban and rural natural population growth rates (according to Vital Statistics report of 1979, the growth rate of population in urban areas was 19.6% and 20.5% in rural areas) are not very much different now. Therefore, this indicator measures the direction and degree of influx of population in each region. A higher and positive value of the index would mean higher inflow of people from rural to urban areas and therefore, higher urbanisation. Bundelkhand and Western regions, achieved the highest value of URGD : 3.68 and 3.45 respectively, while Eastern and Hill regions have more or less similar URGD i.e. 2.83 and 2.80. The Central region has lowest value of URGD i.e. 2.64. (The data reveal that economically welldeveloped Western region and the most underdeveloped Bundelkhand are observing very high rate of urbanisation, whereas the industrially most developed region of the British time, the Central region, is experiencing declining trend in urbanisation. Such variations in the level of economic development and urban growth, therefore, cause one to find out the factors that are responsible for promoting urbanisation and to know what are the economic functions of the cities that may be considered dynamic or parasitic in the development process of the region.) Before we clearly identify the important issues which should be analysed to understand the relationship between economic development and urban growth, an understanding of the current debates in urban studies is in order. For this purpose a review of the literature is done in the following three areas : -

- (a) A critical review of the major theoretical debates in urban studies.
- (b) A review of the major urban studies in India in general, and
- (c) A review of the literature on "urbanisation" in the context of U.P. in particular.

### 1.3 Major Conceptual Debates on Urbanisation :

Social Scientists tend to generalise and Urbanisation has long been the object of such generalisations. There are many scholars like Sjoberg (1963), Davis and Golden (1954), Friedmann (1966), Schnore (1965), Castells (1977), Harvey (1973) and Lipton (1977a) who in their distinctive ways have sought to generalise about urbanisation process in different parts of the world. Whether we accept the validity of Schnore's (1965) argument about urban farms in Latin America converging towards the North American model, or Davis and Hartz's (1954) hypothesis about urbanisation increasing linearly with levels of development, or Castell's (1977) theory of capitalist logic underlying urban development, or Lipton's (1977) urban bias thesis responsible for underdevelopment in the Third World, the assumption underlying all these arguments seems to be that urban forms and development have become more universal. Primarily we can distinguish two approaches in the studies related to urbanisation - on the one hand the 'reformist view', which believes that the emergence of modern cities and long-linear city-size systems improve conditions for the population of poor countries. On the other hand, the 'alarmist view' which attempts to show that conditions of poverty and inequality in the third world countries are both cause and consequence of distorted urban outcomes of capitalist development process.

In recent decades, there has been a growing concern, particularly in developing countries, about the urbanisation and urban growth. The issues underpinning this

concern are of three interrelated but distinct kinds : those related to the size of the city, those related to core-periphery conception, and those related to primacy or excessive dominance of the largest centres.

The city-size debate concentrates on the generative and parasitic role of cities in development or underdevelopment as argued in modernisation paradigm and dependency paradigm respectively. Those, who agree with Richardson (1972, 1976), Alonso (1972), Mills (1972), and Mera (1973), believe that in developing countries, the benefits of the economies of scale that can be gained in large cities outweigh the diseconomies that set in with the attainment of large city size. Implicitly, the large cities have a positive initial role to play in promoting generative developmental impulses. Mera's (1973:313) study of 47 developing countries indicates that, "... the aggregate local government expenditure per capita rises about four times faster than per capita local government expenditure for the same range". Alonso (1975; 625) favours large city size even if costs rise after a certain point because big cities yield a greater net return per worker or inhabitant than smaller ones. Large city size argument is disfavoured by Gilbert and Gugler (1987) on the ground that the available evidence is inconclusive because the benefits of agglomeration relative to its diseconomies have not been costed adequately. The studies of Duncan (1957), Isard (1956) and many others have concluded that as size increases both costs and benefits change form, and because of that, it is impossible to determine an 'optimal city

'size'. Moreover, the proponents of the dependency theory argue that the impact of large cities on less developed regions and settlements is negative, and exploitative, and results in accelerating urban bias in investment. In policy terms, an essentially pragmatic compromise position can be found in the promotion of secondary cities (Rondinelli, 1983). It seeks to stimulate rural development through increasing markets and sources of agricultural back-up via a more equitable distribution of national investment between the urban and rural areas.

Some other arguments relate to core-periphery conceptions of development and underdevelopment. Friedmann's (1966) work had the major virtue of drawing together a wide range of ideas to create an evolutionary model of economic development and spatial change. It incorporated the ideas of Myrdal (1957) and Hirschman (1958) about how market forces accentuated regional inequalities, general models of economic development (Rostow, 1960 ; Prebisch, 1950), and regional planning strategies (Isard, 1956 ; Rodwin, 1973) to produce a simple, normative model of spatial development in less developed countries. All these approaches discussed are underpinned, to a greater or lesser degree, by a core-periphery conception of development and underdevelopment. Interpretation of the consequences of core-periphery relationships, however, vary substantially. Friedmann (1972) equates economic cores with the urban centres, therefore, urban core provides initial generative impulses of development which are then diffused downwards and outwards into the modernising periphery. The diffusion process occurs via the

settlement system, from larger to smaller centres and thus requires the development over time of an integrated rank-size settlement hierarchy. Core-periphery imbalance is a self correcting condition if the right economic conditions prevail. Friedmann's model is the basis of a series of regional development strategies focusing on the concept of the 'growth centres' which are still being employed today (UNCRD, 1976 ; Rondinelli and Ruddle, 1976). The weakness of the model as expressed in other approaches (neo-marxist interpretation) view the relationship between core and periphery as negative and central to the problem of underdevelopment. The core is viewed as a locus of political and economic powers which systematically absorb, to its ends, the most productive resources of periphery (Stuckey, 1975 ; Santos, 1979). Further, the dynamic relationship between core and periphery is viewed as tending not towards equilibrium but towards increasing polarization.

The idea gets support primarily from the dependency theory that one nation exploits others (Frank, 1967 : 971; Amin, 1974 ; Emmanuel, 1972). However, Gilbert and Gugler (1987) clearly distinguish between spatially uneven development and under-development which relates to the welfare of the people. The validity of the concept globally does not necessarily mean to transplant concepts to a lower level of spatial aggregation (Massey 1978).

A third debate, closely related to others but conceptually quite different from them, hinges on whether or not

a condition of primacy is developmentally positive or negative. The primacy is defined as one or a limited number of cities dominate the rest of the settlement system. Two issues are central to the debate. The first is, whether or not there is a correlation between primacy and economic growth. The second relates to primacy and its impact on innovation diffusion.

In relation to the first issue, there have been several studies that have attempted to correlate levels of economic development with primacy. Mera (1973), relating increasing rates of primacy to increasing rates of growth of gross national product (GNP) across 47 developing countries, over a period of seven years, found that for those countries in which a change in primacy was less than 1 % in general had a much lower growth of GNP per capita. Those countries, for which change in primacy was over four percentage points, had a growth rate of GNP much higher than any other nation. Berry (1961) attempts to correlate levels of development with primacy which led him to conclude that different city size distributions are in no way related to the relative economic development of countries. El Shakhs (1965; 47) found such a relationship to be non-linear one, with low primacy at early and advanced stage of development and a peak at the middle range. Indeed, various efforts to relate the degree of primacy to the levels of development or per capita income have proved inconclusive (Barry, 1961; Mills 1972;). In other words, if there is a relationship, it is of a much more complex form.

The second and primary issue hinges on the relationship between primacy and regional development as opposed to national economic growth. The argument of regional polarisation is a natural corollary of the early stages of economic expansion. It finds its intellectual and empirical support in the work of Kuznets (1966) and Williamson (1965). Both used historical data for developed countries and cross-sectional analysis to support the proposition that there is a long - term trend towards the equalisation of personal (Kuznets) and regional (Williamson) incomes. Williamson found that in the ten countries for which temporal data were available regional income disparities first increased and then declined as a more mature economic system evolved. More recently, Richardson (1977a) has noted strong indications of such tendencies what he called 'polarisation reversal' in the urban system.

The implication of these findings is that Government intervention and de-concentration is unnecessary because regional balance will occur naturally. Some economists have taken this point even further to argue that government intervention in the distribution of economic activities is likely to waste scarce capital resources and thereby is likely to slow down the rate of national economic growth. However, such a recommendation is controversial and the evidence on which it is based has been criticized on numerous grounds. Gilbert and Goodman (1976 : 119-22) have argued that convergence is likely to be weak because : today's poor countries may never reach the levels of per capita income at which regional convergence begins

and that the regional disparities in less developed countries today are much greater than those characteristic of developed countries in the past; and convergence depends on effective government intervention. Second, efficiency of the larger cities has recently been called into question by Johnston (1976) and Ternent (1976). Gilbert (1976) argued that higher productivity to some degree in larger cities is achieved at the cost of lower productivity in smaller cities; if equivalent infrastructure or labour were available in medium-sized centres, then the productivity of those centres might also rise. Finally, it is obvious that the worst consequences of metropolitan expansion can be avoided by better urban planning (Gilbert and Gugler, 1987).

#### 1.4 Important Urban Studies in India :

The urban field has been subjected to multidisciplinary research involving disciplines such as Geography, History, Political Science, Demography, Sociology and Social Anthropology besides Economics (D'souza, 1985). The present appraisal has been undertaken only from the economic point of view. This raises the problem of the selection of urban studies which are relevant for our scrutiny. Therefore only major studies which deal with the problems and the areas of economic interest have been included even though their approach may not be the economic one.

During the last few years, a large number of studies have appeared on various aspects of urbanisation in India. The reason for this increased concern with urbanisation seems to be the unprecedented urban growth in India. According to 1981 Census Reports there appeared 555 new towns in India with as high a recorded population growth as 46.39 per cent during 1971-1981. The growth of urban places in and by itself will not create scope for government intervention unless social scientists highlight growing socio-economic problems faced by these cities in turn.

The whole literature pertaining to urbanisation may be divided in two schools of thought. A group of social scientists compare the pattern of urbanisation of India with the pattern of urbanisation of the developed nations of today by equating two countries' levels of development in terms of their

per capita income. Another group of social scientists who attempt to understand and analyse the problems of today's India, consider the impact of colonial policies to be responsible for existing urban structure in India. However, all such views are being incorporated while reviewing studies on urbanisation as follows :

The relationship between urbanisation and economic development in India, despite lingering doubts, e.g., (Swami, 1972) has been well established. various studies (Sampat, 1972; Bose, 1969; Sharma, 1968; Mohan and Pant, 1982; Mohan, 1985; Mills and Becker, 1986) support this proposition but the question remains unanswered is that which one of these two is the independent variable. Thus, we find Bose (1969), Mills (1986), Mohan and Pant (1982), and various others trying to show urbanisation as a natural and inevitable consequence of development on the one hand whereas Sharma (1968) arguing against this proposition on the other.

In Turner's (1962), "India's Urban Future" Hoselitz compared India's level of development with eight developed nations when their levels of urbanisations were similar at various points of time to that of India's in 1951. The analysis reviews that the composition of workforce engaged in agriculture, manufacturing and services is distinctly different as compared with India in spite of having same level of urbanisation. However, Banarjee (1969:173) severely criticised such comparisons due to different 'structures' and historical experiences of different countries. Moreover, India has an economy with its own peculiar structure. In a recent study by

Mills and Becker (1986:15) a comparision between the GNP per capita and per cent urban for India and its neighbouring seven South East Asian countries has been made in 1980 .Mills and Becker(1986) also reached the conclusion that different countries due to their different industrial structures achieve different levels of urbanisation and therefore, are not comparable. Analysis reveals that relationship between urbanisation and economic development is strong , yet complex and varies among countries. There are various studies(Gore et.al,1976) ;Jauhari, 1973 ;Kayastha,1973;Kurien and James, 1975) ,which have attempted to analyse the cause of growth of urbanisation in such diverse regions as Sutlej-Yamuna divide, Himalayan Beas Basin, Tamil Nadu and Gujarat, reached a conclusion that urbanisation is linked with industrial activity. Nevertheless , the evidence is not conclusive enough to put an end to the debate.

A closely related concept of urbanisation with development termed as 'over urbanisation' has been analysed by Sovani(1964). He defines it as a situation in which increase in urban population is not accompanied by a corresponding increase in the workforce in non-agricultural sector , therefore, Indian urban phenomenon is a cause of over-urbanisation . Kundu and Raza (1978:146) have used the term 'urban accretion' to define such situation as "distorted growth of urban centres in relation to their own economic base on the one hand and to the regional economy on the other". However, Shafi (1988:12) contradicts existence of over-urbanisation because two third of the total population of India still lives in rural areas.

An important aspect of urbanisation and urban growth is the spread and dispersal of urban population and settlements. The number spacing and size of urban settlements has an important bearing on socio-economic development. Accordingly, it is assumed that the desirable pattern of urban settlements would consist of the distribution of settlements of a given size at regular intervals and of the arrangements of the settlements of different sizes in a region into a hierarchy. Any deviation from this pattern is supposed to indicate an imbalance in the socio-economic development. This aspect has achieved much attention and there are a number of studies which examine the spacing of cities of different sizes from this angle.

There are number of studies ( Raza et.al. 1981; Minocha,1982; Das,1985; Buch,1980; Dasgupta,1987; Munshi,1974; Kundu and Raza, 1982) which have clearly characterised Indian urbanisation pattern as top heavy, dysfunctional and assymetrical. The colonial rule in India is responsible for the fragmantation of rural urban continuum, Thuogh in ancient India, towns with relatively stronger and symbiotic links with the surrounding villages used to constitute the channels through which the impulses of growth were transmitted from the urban modes to the rural hinterlands ( Raza,1981:86). According to Misra,(1984) British policies are responsible for existing rural urban dichotomy in India. Which disrupted the age old technoeconomic links between the town and the countryside.

Bagchi (1976) identified British impact on de-industrialisation and Habib (1984) associated it on the de-urbanisation also. The misuse of free trade after 1813 devastated centres of handicrafts, particularly textiles and a fresh process of urban decay began(Gadgil,1971;180). Habib(1984,:11) presents data to show that Lucknow, the largest city of Avadh, lost all its dynamism once it was under the British rule. Raza and Habeeb (1976) empirically substantiate the characteristics of Calcutta as satellitic primate which is a result of colonial urbanisation. Mohan and Pant (1982) and Mohan (1985) advocate that India experiences a stable human settlement pattern, however, the urban structure looks top heavy due to no possibility of movement of towns in the top most classes in the hierarchy of towns.

In view of the above, it has been observed that large non-productive super structure of urban system rests on a weak economic base (Raza et.al.,1981:88). They empirically analyse the economic function of towns and reach the conclusion that there exists a weak secondary sector and a bloated tertiary sector. In another study, all towns of India have been classified in terms of their functional characteristics as given in 1961 and 1971 Census Reports. Mitra et.al.(1981) observed that service activity predominated in towns and emerged higher in 1971. Munshi(1974) and Kundu(1983) put forward evidence of planned industrial townships like Durgapur, Bhilai, Jamshedpur, Rourkela, etc. and claim that income generated by them hardly exerted any significant multiplier effect on the surrounding areas; nor did they cater to the commodity requirements of the surrounding

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areas. Besides in most of the big centres tertiary activities overshadow all other occupations.

Another related aspect of urbanisation which has been considered by the social scientists is its association with economic planning and regional disparities. Das(1985) argues that 'presidency frame of urban system' is legitimised further by Five Year Plans establishing large scale public sector projects at specific points which led to the growth of region specific industrial-type development accentuating regional disparities inherited from the colonial economic structure. Kundu(1983:43) finds that the post independence industrialisation has resulted in an accelerated concentration of heavy industries and other allied industries in the older economic region thus it has intensified inter-regional disparities and has resulted in the growth of urban agglomerations around metropolitan nodes. Mohan(1982) however, emphasises on the regional studies of urban growth due to the diverse factors becoming more important in different regions. He found that poorer states like U.P., Bihar and M.P. have urbanised faster than the already industrialised states like West Bengal, Tamil Nadu, and Maharashtra. Recently, in a detailed study, Dasgupta (1987) looks at the urbanisation pattern of West Bengal and argues that existing contrasting pattern of West Bengal in comparision with Punjab, Haryana and Kerala is due to differing land tenure system, colonial economic policies and economic development policies pursued in post-independence period .

### 1.5 Studies in the Context of Uttar Pradesh

There is no dearth of the literature on urban studies on U.P., but most of them look at the process of urbanisation either from the geographical or the sociological point of view. A few studies, though not mainly establishing relationship between economic development and urbanisation, do mention economic activities in cities. However, their focus is descriptive rather than analytical. A majority of the scholars are involved in identifying spatial location of cities or degree of specialisation of cities in different economic activities.

Most of the studies on U.P., which are available, have one distinctive characteristic that their area of investigation is limited to KAVAL (Kanpur, Agra, Varanasi, Allahabad, Lucknow) towns and their umlands. A study by Singh and Dubey (1973) deals with the land-use pattern in central business districts of the KAVAL towns of U.P., whereas, Dubey (1973) concentrates on problems and magnitude of misuse of land in Agra. In another study by Dubey (1981), particularly of KAVAL towns, a positive relationship between industrialisation and urbanisation has been established. He finds economic facilities and religious activities to be responsible for overcrowding within these cities.

There are a number of studies focusing on a specific problem of a particular city; such as the demographic aspects of the city Varanasi have been highlighted by R. Saxena (1971),

whereas those of Lucknow by D.N. Saxena (1973). On the one hand Srivastava (1973) focuses on the problems of urban fringes of Allahabad, Singh (1969) provides a historical analysis of Varanasi, on the other. A fairly comprehensive survey of living conditions of the labour classes is provided by Agnihotri (1954). In a recent study, Dayal and Bajpai (1988), in an historical analysis of the city of Kanpur, found that it is a declining city not only industrially but also culturally. Due to the decline in textile and leather industries the social and cultural institutions of the city have also been eroded in this process. The study recommends strong Government intervention to prevent decline of such a large industrial city like Kanpur.

A number of studies on the towns of secondary importance have emerged since late fifties when Singh (1956) studied Mirzapur, a town within the wider umland of Benaras. Onkar Singh (1969), in his doctoral dissertation, analysed the residential structure of cities like Agra, Aligarh, Barabanki and Dehradun. Another recently published study by Srivatava (1987) looks at Bareilly city in a historical perspective and evaluates its growth pattern as an urban centre. The main hypothesis of the study was that, "the geographical situation of a city is very important for its growth, development and rapid urbanisation." It was confirmed for the city (Bareilly) he selected for his study.

One of the first studies which considers the city with its hinterland in U.P. is on Benaras by Singh (1955). The

study deals with spatial relations of Benaras city with its umland in terms of the distribution of population, economic activities, public institutions, etc. The study is an exhaustive survey but is written from a geographical view point. There appeared three studies in a recent book edited by Yadav (1987). Two of them (Dixit, 1987; Pal, 1987) deal with Kanpur and its umland and one by Soni (1987) deals with Lucknow and its hinterland. Dixit (1987) has attempted to define umland, described typology, and hierarchy of towns apart from physical details of the region. Pal (1987) and Soni (1987) used Nelson's method for the functional classification of towns in the umland of Kanpur and Lucknow respectively. Pal (1987) finds Kanpur very similar to other regions in the country, i.e., it has predominantly traditional economic base and functionally unbalanced. The study of Soni (1987) reveals that the Northern half of the umland of Lucknow has experienced a lesser degree of urbanisation.

Very few macro-level regional studies are also available for U.P., e.g., Srivastava (1965), Bhatia (1973), Tewari (1985), Maurya (1988). Maurya (1988), using 1971 Census data, analyses the functional typology of urban centres in the Eastern Uttar Pradesh. On the basis of the analysis of economic specialisation in cities and their occupational structure he reaches a conclusion that urban centres of the Eastern U.P. are pseudo - towns which are dominated by agricultural activities. From the manufacturing point of view, the region lags far behind, except in some household industries.

The first detailed work on urbanisation and urban growth pattern for U.P. as a whole was done by Saxena (1969). Later on Saxena (1981) published her dissertation dealing with patterns of urbanisation of U.P. The study by Saxena (1969) tries to account for the relatively low degree of urbanisation in Uttar Pradesh. The author argues that there are too many smaller towns in U.P. which normally do not play a significant role in the growth of urbanisation; moreover, the larger cities of the state have not grown as much as their counterparts in some other states. Saxena (1981) deals briefly with the history of modern cities, economic classification of urban centres, urban morphology, along with establishing relationship between industrialisation and urbanisation. It deals with urban demography of U.P. in detail. However, she mainly finds that the industrialisation in U.P. began not due to the geo-economic reasons but the political and strategic factors which supported by technological and rail-road development, were responsible for the growth of industries. Therefore, the ancient cities look like countryside than a city of the West. In another study, Gupta (1980) analyses trends and patterns of urbanisation in U.P. He considers changes in the definition of census, which affects the number of small size cities, to be responsible for revealing rather confusing and unexpected trends in urbanisation. However, using the data from 1971 Census, he finds that the urbanisation in Uttar Pradesh is predominantly a demographic phenomenon; to the extent that the growth in urban population is not necessarily accompanied by a structural transformation of the economy and

urban areas. The growth of individual towns has not been found to be consistently related with the strength of their economic base (Gupta, 1980:22). A study by Sinha (1988) shows urbanisation as a facilitative factor for economic growth and occupational diversification. The study is based on a sample of thirty towns out of seven hundred and four towns of U.P. in 1981. After a detailed analysis of trend of urban growth and inter-regional pattern of urban growth, it has been concluded that urban growth is accompanied by economic development, especially in large, industrially developed and favourably located towns. However, a majority of towns are small and are located in backward regions. The study also highlights that high growth rate in towns is recorded by towns situated in agriculturally advanced regions. Finally, a recent work of Dubey (1988) is based on the assumption that urban places are expressions of economic progress, social transformation and technological innovations and therefore, have high positive association with diversification of rural economy. In this study the small towns have been analysed historically in terms of their speed of movement and their growth rate identifying their economic activities during three time periods, i.e., 1901-21, 1921-1951 and 1951-1981. On the basis of certain indicators of rural development, it has been concluded that small towns in Uttar Pradesh have high association with rural development at present, a trend quite unlike the one observed during the colonial period.

From the studies at international and national level, it is obvious that some scholars have treated urbanisation

as an end in itself, whereas other see it as a means to achieve other goals. These diverse perspectives truly reflect the differences in the objectives for which urbanisation have been advocated by different groups. The review of literature of studies, related to urbanisation, for U.P. in particular, reveal that :

- (a) Most of the studies are concentrated on individual cities and their umlands using descriptive rather than analytical approach.
- (b) Studies are limited in scope because they do not take into consideration many variables which are of special interest to the Economists. In other words, studies view urbanisation either from the sociological, demographic or geographical angles.
- (c) Hardly any indepth macro-level study of urbanisation, using the current data and disaggregating it to the regional level, is found especially by the Economists.

Therefore, a detailed and intensive study of urbanisation in U.P., considering it is in order. Besides, extreme inter-regional variations in the level of agricultural and industrial development, and urban growth in Uttar Pradesh increase the scope and importance of the study particularly from a policy point of view. In light of the above facts, the vast geographical areas and high variations in the levels of urbanisation as well as economic development in Uttar Pradesh provide an unique opportunity and scope for examining the propositions outlined below.

### 1.6 Hypothesis and Main Issues:

Keeping in mind the above mentioned shortcomings in the investigations attempted earlier it is proposed that:

"It is not simply growth of population in cities but the nature of production structure, the economic base and their linkages with the countryside that reflect the existing development pattern of an economic system".

Based on the proposed hypothesis and a need for an empirical analysis of urbanisation using updated information, the following issues seem worth consideration:

- (1) What is the current theoretical debate on rural-urban divide?
- (2) What are the factors in the history of India responsible for the present day rural-urban dichotomy ?
- (3) Whether or not the colonial-type top heavy structure of urbanisation has been broken down in independent India?
- (4) Whether or not a stronger relationship between industrialisation and urbanisation appears during the period selected for study?
- (5) Whether or not cities and smaller order towns could develop strong economic base to become dynamic centres for growth and development?
- (6) Whether or not, and to what extent, agricultural and industrial development have effected the process of urbanisation in Uttar Pradesh, and,

(7) Whether or not urbanisation intertwined with industrialisation could change urban occupational structure in Uttar Pradesh ?

#### 1.7 Concepts and Definition of Urbanisation.

No study on urbanisation can be realistic unless the Census definition of 'town' is adequately understood. In India, we find that the Census definition of 'town' remained more or less the same for the period 1901-1951. It was only in 1961 that several modifications were introduced to make the definition more appropriate and similar to the definitions adopted by major countries in the world. Besides, an interesting feature of the Indian Census has been the discretion given to Census superintendents in regard to the classification of places on the borderline of 'rural' and 'urban'.

The study of definitions of town in different Censuses (from 1901 to 1981) provides an interesting account, pointing towards a gradual evolution. The definitions of towns in different Censuses, as given below, have been taken from the Town Directory of 1971 and 1981.

(a) 1901 and 1911 - A Town was defined as:

(i) Every continuous group of houses inhabited permanently by not less than 5000 people.

(ii) Every area within which the Chaukidari Act or the Municipal Act or Cantonment Act is in force.

(b) 1921 - The definition remained as before except that for the above Acts, Act II of 1914 and Act II of 1916 were substituted.

Two explanations were also added:

1. Where several villages lie so close together that their homes form a continuous group with a population exceeding 5000. Such a group is a town; and
2. Where one village is broken up into two distinct groups of homes, none of which contains more than 5000 inhabitants, the place is not a town.

(c) 1931 and 1941:

The definition included all municipalities, notified areas, town areas and cantonments. The Census superintendent was given the discretion to treat a place inhabited by not less than 5000 persons as a town considering its character, importance and historical associations.

(d) 1951

In the Census of 1951 a city was defined as a town with a population not less than one lakh or any other town with an expected population of 50,000 or above which the state superintendents with the sanction of state Government might decide to treat as a city for Census purposes.

(e) 1961:

The following places were deemed to be urban in the 1961 census:

1. All Municipalities and Notified areas.
2. All cantonments.
3. All places satisfying the three conditions noted below:-

- (i) Population exceeds 5,000.
- (ii) at least three-fourth of the working population depends on non agricultural pursuits, and,
- (iii) density of population exceeds 1000 persons per sq. mile (386 per square kilometer).

4. All localities though not in themselves local bodies which are contiguous to a city or town and have urban characteristics mentioned at (ii) and (iii) above.

The definition adopted during 1971 Census was similar to that adopted during 1961. The following conditions have to be satisfied in order to treat a place as urban.

- (1) All Municipal corporation, Municipal Boards, Cantonments and Notified Areas.
- (2) All localities though not in themselves local bodies but forming part of a city or town agglomeration.
- (3) All other places satisfying all the three undermentioned conditions:
  - (a) a minimum population of 5000
  - (b) at least 75% of male working population in non-agricultural activities, and,
  - (c) density of population exceeding 1000 persons per square mile (386 persons per square kilometer).

The 1981 Census adopted the following criteria, after a considerable thought to treat a place urban.

- (a) All statutory towns i.e. all places with a Municipal Corporation, Municipal Board, Cantonment, Board or Notified Town Area.'
- (b) All other places which satisfy the following criteria.
  - (i) A minimum population of 5000
  - (ii) 75 percent of the male population engaged in non-agricultural (and allied) activity, and
  - (iii) A density of population of at least 386 per Sq. Km.  
(or 1000/ sq. mile)

#### 1.8 Concept of Outgrowths:

At the time of the 1951 Census, the Census Commissioner adopted the concept of town group as distinct from town. A town group was a group of towns which adjoined each other so closely as to form a single inhabited urban locality for demographic purposes. This concept remained unchanged in the 1961 Census also. However, in the 1971 Census, town group has been replaced by "urban agglomeration" (U.A.) which has been defined as:

- (a) a city or town with contiguous outgrowth(s), the outgrowth being outside the statutory limits but falling within the boundaries of the adjoining village or villages; or
- (b) two or more adjoining towns with their outgrowths all of which form a continuous spread.

Moreover, another difference in the definition of 1981 Census from those of 1971 and 1961 was that the workers in occupations of fishing, livestock, hunting, logging, plantations and orchards etc. (falling in the industrial category III) were treated as engaged in non-agricultural activities in 1961 and

1971, whereas in 1981 Census these activities are treated at par with cultivation and agricultural labourers, i.e., primary activities.

No definition of an urban place is entirely satisfactory or precise. Ambiguity inevitably arises especially with small places. Nevertheless, Indian Census definition as described above appears to be quite precise and consistent in 1961, 1971 and 1981. (Mills and Beker, 1986).

#### 1.9 Comparability Problem of Workers Defined in Census of Last Three Decades:

A comparision among the workers from the Census figures of 1961, 1971 and 1981 may lead us to incorrect conclusions, if no review of changes in definition of 'worker' is done.

In 1961, a person was classified as a worker.

(a) In the case of regular employment in any trade, profession, service, business or commerce, if the person had been employed during any of the fifteen days preceding the day on which he was enumerated.

(b) In the case of seasonal work like cultivation or livestock, if worked more than one hour a day throughout the greater part of the working season.

In 1971, Census introduced the concept of "main activity", i.e., the activity (not necessarily work) in which the person "engaged himself mostly". The activity was further classified as primary activity and secondary activity. A person was considered

worker if his/her main activity was classified as; cultivator, agricultural labour, household industry or other work. Obviously, the definition of work in 1971 was more restrictive than that of 1961 since it excluded non workers like housewives and students who contribute to family income by performing work. As a result, the 1971 Census recorded a considerable decline in crude work participation rate from 43.00% in 1961 to 32.9% in 1971.

In 1981, Census collected basic information at first "if worked any time at all" last year. This question was intended to divide the population into two broad streams on the basis of a liberal definition of work. The question was expected to net all workers irrespective of the amount of time that they spend on work. In other words, this question was supposed to find out the number of all workers which include full-time workers, part-time workers, marginal workers and even workers whose contribution could otherwise be considered insignificant. Further, workers were distinguished as main workers and marginal workers if they had worked more than six months or less than six months in a year respectively. The work was also defined as "participation in economically productive work".

In India, it is very difficult to determine economically productive work which gets mixed up with participation in family enterprise especially in the case of women (Sinha, 1982: 196). Physically fit adult males are required by economic compulsion as well as social tradition to be working regularly. On the other hand, the primary role of women is that of housewives. Many women who share work in family enterprises equally with men, generally

fail to qualify as workers if cultural inhibition prevent the respondent from assigning work status to them. The majority of the Indian women are unpaid family workers and possibly do not work regularly - they remain non-workers by main activity criterion.

Therefore, for the sake of comparability of workers in 1961, 1971 and 1981, only male workers have been considered. The study includes only main male workers of 1981 Census. The marginal workers are not included as they constituted only .31 percent of the total urban workers in 1981 in Uttar Pradesh. Similarly, the proportion of urban female main workers to total urban population was 3.58% in 1981. Moreover, about 80% of the total female main workers were engaged as cultivators and agricultural labourers. The proportion of workers in agricultural activities in towns is found to be very low, therefore, such insignificant proportion of female main workers in urban areas in U.P. will not affect conclusions of the study considerably.

#### 1.10 Reference Years:

The study considers three time periods which are chosen to coincide with the 'Census Year', in India i.e., 1961, 1971, and 1981. However, to analyse the spatial characteristics of towns and their occupational structure the study also considers Census years of 1901, 1911, 1921, 1931, 1941 and 1951. The data for all time periods have been so descriptively and carefully selected that it should cause no serious problem of comparability.

#### 1.11 Sources of Data:

The study is based on the data compiled from secondary sources. The major sources of data are the following:

- (a) Reports and Occasional Papers from the Census of India, Government Of India, Delhi;
- (b) District-Wise Indicators of Development in U.P published from the State Planning Institute, U.P, Lucknow;
- (c) Annual Survey of Industries, Economic and Statistics Division, State Planning Institute, U.P, Lucknow, and
- (d) Bulletin of Agricultural Statistics, Directorate of Agriculture, U.P, Lucknow.

In addition, some relevant data/informations have also been used from different research projects, research studies and research articles.

### 1.12 Use of Statistical Techniques:

The analysis in the study involves the following statistical methods besides using simple percentages in tabular form.

#### 1.12.1 Index of urbanisation and industrialisation

The index is prepared by redefining Gibbs's(1966:333) index of local specialisation, which is a ratio of an industry's share of local employment relative to the locality's share of national employment. The value of the index signifies the magnitude of urbanisation and industrialisation in the district/city relative to its degrees in the state :

##### (i) Index of urbanisation :

$$\text{IOU} = (u_i/u_t)/(U_i/U_t)$$

where,

th

$u_i$ = urban population of the  $i^{\text{th}}$  unit under study.

$u_t$ = total population of the unit under study.

$U_i$ = urban population of the state.

$U_t$ = total population of the state.

##### (ii) Index of Industrialisation:

$$\text{IOI} = (e_i/e_t)/(E_i/E_t)$$

$e_i$  = urban workers and manufacturing activities in the unit under study

$e_t$  = total urban workers in the unit under study

$E_i$  = urban workers in manufacturing activities in the state

$E_t$  = total urban workers in the state

#### 1.12.2 Correlation coefficients

To measure the extent to which workers in certain categories, e.g., cultivators, agricultural workers, workers in household industries are related and to analyse the direction of change in their relationships over the decades. Pearson's product

moment correlation coefficient is used:

$$r = \frac{\sum X_i Y_i - (1/N) (\sum X_i)(\sum Y_i)}{\sqrt{[\sum X_i^2 - (1/N)(\sum X_i)^2][\sum Y_i^2 - (1/N)(\sum Y_i)^2]}}$$

where,

$-1 < r < 1$  and variables X and Y refer to various combinations of number of workers in different industrial categories

However, Spearman's rank-order correlation ( $r$ ) is preferred for computing the magnitude of the relationship between the index of industrialisation (IOI) and the index of urbanisation (IOU) arranging values of index in ascending order. The computational formula for Spearman's coefficient is

$$r_s = 1 - \frac{6 \sum d^2}{n(n^2 - 1)}$$

where,

$d$  is the difference in rank values between IOU and IOI

#### 1.12.3 Coefficient of variation

For comparing the variability in the distribution of workers in different regions over the decades, the coefficient of variation is calculated as follows:

$$CV = \frac{\sqrt{[\sum X_i^2 - (1/N)(\sum X_i)^2] / (N)}}{(\sum X_i) / N} \times 100$$

#### 1.12.4 The regression analysis

To study the relative contribution of agriculture and industry in the process of urbanisation, the

technique of multiple regression analysis is applied considering the following type of relationship:

$$\log Y_j = A + \sum_{i=1}^N B_i \log X_i$$

where,

$Y_j$  ( $j=1, 2, 3, 4$ )

$Y_1$  = urban population in absolute numbers in a district

$Y_2$  = population of towns having inhabitants 20,000 or more in each district

$Y_3$  = percentage of urban population to total population of a district

$Y_4$  = percentage population of the town having inhabitants 20,000 and more to total population of a district

$X_1$  = value added per industrial worker

$X_2$  = average yield per hectare in agriculture

$X_3$  = cropping intensity

$X_4$  = land-man ratio

$X_5$  = per capita income

$X_6$  = concentration of industries

$X_7$  = workers in manufacturing sector

$X_8$  = index of wage disparity

$X_9$  = agro - processing units

$X_{10}$  = metal and chemical based industries

$X_{11}$  = per capita value of agricultural produce

where,

$A$  is the constant parameter and  $B_i$ 's are the respective slope parameters of  $X_i$  variables in the model.

The number of districts at three time periods (1961, 1971, 1981) constitute number of observations for each point's regression analysis because district-wise information has been used to quantify the variables in the model. Moreover, four regression equations are fitted for each time period using  $Y_j$  one by one.

The regression coefficients of the Western and the Eastern regions are also tested using t-test of difference, where the null hypothesis is that equal slopes in the population:

$$H_0 : \beta_{1,W} - \beta_{1,E} = 0$$

$$H_a : \beta_{1,W} - \beta_{1,E} \neq 0$$

where,

W designates the Western region and E designates the Eastern region.

Then,  $t_d = \frac{(\beta_{1,W} - \beta_{1,E}) - (\beta_{1,W} - \beta_{1,E})}{S(\beta_{1,W} - \beta_{1,E})}$

where,  $S^2(\beta_{1,W}, \beta_{1,E}) = S^2(\beta_{1,W}) + S^2(\beta_{1,E}) - 2 \text{Cov}(\beta_{1,W}, \beta_{1,E})$

S denotes standard error of the coefficient

#### 1.13 Organisation of the Study:

The study has been organised in five chapters. In the present introductory chapter need of the study, major issues for analysis, definitions, concepts and statistical techniques used were discussed. In addition, this chapter also included a review of the literature available on major conceptual debates, empirical urban studies in India as well as in Uttar Pradesh. The chapters that follow have a detailed empirical analysis of aforesaid issues under investigation.

The second chapter entitled "Urban-Rural Dichotomy-A Perspective" has been divided into three parts. The first part deals with the notion of urban bias in the models of Classical and Neo-Classical economists along with providing a detailed account of the debate on urban bias as viewed by the social scientists in the late seventies and onwards. The second part of this chapter attempts to identify the crucial element of unity between city and countryside in ancient and medieval India.

It also highlights the British colonial economic policies responsible for creating city-countryside dichotomic relationships. The third part of the chapter discusses urban-rural divide using examples of present day India.

The third chapter in the study entitled "Character and Trend of Urban Growth in Uttar Pradesh" is a broad and a detailed empirical account of urbanisation and therefore, has been divided into four parts. The first part identifies spatial characteristics of urban centres of different orders in different regions of U.P along with analysing the changing pattern of urban growth over the decades. The second part of this chapter, in order to determine the economic base of towns, probes into the economic activities within the towns which are registering high, medium or low rates of urban growth during the period of study. In part three, extent of relationship between industrialisation and urbanisation is studied in different regions, constructing index of urbanisation and industrialisation city-, district- and region-wise. The final part of this chapter examines ongoing process of occupational transformation taking place in cities and urban areas since 1901 till 1951 and 1961 till 1981 respectively.

The fourth chapter entitled "Urbanisation and Economic Development", examines relative contribution of agriculture and industry in the process of urbanisation using step-wise multiple regression analysis.

The final chapter summarises main findings of the study and endeavours to provide suggestions for policy formulations which may ensure better and planned urban development in the state.

## Notes:

## Chapter 1

1. Development includes goals which may be social, political, cultural and philosophical. However, Goulet (1971) included three basic components or core values in the wider meaning of development, which he called life sustenance, self esteem and freedom.
2. Ashish Bose (1978), distinguished urbanisation and urban growth using term urban growth for net increase in urban population; whereas 'urbanisation' as an increase in the ratio of urban population to total population. Such a distinction may be relevant for micro-demographic studies but surely not for macro economic studies of urbanisation. Therefore, the term 'urbanisation' and urban growth have been used quite interchangably.
3. Districts constituting different regions of U.P. :

Hill Region : Pithoragarh, Chomoli, Uttarkashi, Dehradun, Tehri Garhwal, Garhwal, Almora and Nainital.

Western Region : Saharanpur, Muzaffarnagar, Bijnor, Meerut, Moradabad, Bulundshahr, Rampur, Bareilly, Pilibhit, Shahjahanpur, Badaun, Aligarh, Mathura, Etah, Mainpuri, Farrukhabad, Etawah, Agra, and Ghaziabad.

Central Region : Kheri, Sitapur, Hardoi, Lucknow, Barabanki, Rae Bareli, Unnao, Fatehpur, Kanpur.

Eastern Region : Bahraich, Gonda, Basti, Gorakhpur, Deoria, Ballia, Azamgarh, Faizabad, Sultanpur, Jaunpur, Varanasi, Mirzapur, Allahabad, Pratapgarh, Gazipur.

Bundelkhand Region : Banda, Hamirpur, Jalaun, Jhansi, Lalitpur.

## CHAPTER2

### RURAL - URBAN DICHOTOMY : A PERSPECTIVE

1

#### 2.1 Controversy of Urban-Bias:

The spark of the rural-urban debate began from very fundamental belief of the Classical economists that industry benefits more than agriculture because the former gains from specialisation of labour. Most of the anti-agricultural doctrines of the Classical economists, which led to the concept of 'urban bias', are based on their understanding that industry needs protection more than it is needed by agriculture; that manufactured exports are better than farm exports; that urban industrial growth depends asymmetrically on extracting a rural agricultural surplus of food; that agriculture's decreasing returns justify bleeding it of resources to help industries giving 'increasing returns'; that trade requires cities; that the city-oriented capitalist farming is better than village oriented peasant farming.

Some of these views are reflected in Adam Smith's 'Wealth of Nations' in which he perceives two requirements for the prosperity of a nation - free trade i.e., incorporation of domestic economy into a world capitalist system, and more agricultural wage goods to feed an increasingly large industrial workforce (Lipton, 1977: 93). Preference to manufacturing, according to the Classicals was due to their belief that industry benefits more than agriculture from a larger market, because it

gains from the specialisation of labour. (Kaldor, 1964 : 180).

2

Marginalists believe that any kind of 'bias' in any country can be a temporary phenomenon because the economic system automatically moves towards equilibrium. According to Marginalists the problem of urban-rural balance is corrected by marginal principle of allocation assuming that the last or marginal unit of the resource, going to each use, adds the same amount to the users' benefit. Most of the Marginalists would, therefore, expect individuals and market responses to set in motion in such a way rendering urban life less pleasant and rural

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life more pleasant - and thereby destroying urban-bias (Hoselitz, 1972). Urban bias exists in Marginalist theory due to the lack of institutional theory and their emphasis on automatic equilibrium as against cumulative causation and divergence. They do not consider the ties of rural debt that keep the really poor man from moving in search of higher rewards and the ties of kinship and special knowledge that cause urban advantage to be self reinforcingly transmitted among townsmen (Lipton, 1977a : 100-106).

The Marxist views about urban-rural relations can be illustrated using Hoselitz's (1954-1955) distinction between 'generative' and 'parasitic' nature of cities. According to the generative concept, the city is beneficial to rural areas because it is considered to be the catalyst for economic development and centre of innovation. Even if urban growth requires the creation and extraction of food surplus from rural areas so that cities derive their subsistence and much of their wealth from the

surrounding countryside, the relationship is mutually advantageous because of the gains from the trade resulting from specialisation and division of labour. The Marxists, however, argue that the extraction of surplus - not only to feed the city but also to provide the resources for expanding production (investment) involves exploitation in the form of primitive accumulation.<sup>4</sup> Marx (1967) argues, in this regard, that the foundation of every division of labour that is well developed and brought about by the exchange of commodities, is the separation between town and country. It may be said that the whole economic history of society is summed up in the movement of this antithesis (Marx, 1967:352) that when the surplus is extracted by the cities and used for conspicuous consumption, the city is parasitic in nature.

The socialist thinking differentiates between the need for a surplus in order to develop a society, and a mechanism by which this surplus is extracted. The solution prescribed is that rent, interest and profit are replaced by socially necessary labour that produces use-value rather than exchange-value, i.e., under socialism the surplus is created out of unalienated labour. Thus in socialist countries surplus does not accumulate via class exploitation but by voluntary donation of a quantity of each worker's surplus labour for social good. However, Marx's and Engle's assertion that the antithesis between town and country would disappear under socialism is unconvincing. Since agglomeration and other scale economies are an important source of growth which put big cities in a considerably advantageous

position. Therefore, cities gain more than proportionately even in socialist countries (Richardson, 1977). Moreover, in countries having low level of urbanisation, it may be feasible to promote development and urbanisation in a manner that permits a better balance between rural and urban life. It would be very difficult to unlock the metropolitan stronghold in countries like India or those in Latin America where cities are more developed and have already acquired strong cosmopolitan and capitalist traits. Thus Marxism tends towards correct diagnosis of 'urban-bias' but lacks appropriate prescription for its remedy (Lipton, 1977a : 100).

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Looking at the development studies of early stage (i.e. the 1950s) a considerable concern was expressed by those having a Western-centred historical perspective, considering something abnormal or even pathological about the pattern of both urbanisation and rural-urban relations in the Third World. The initial enthusiasm and efforts for import substitution and emphasis on basic and heavy industry have led to some distortions in resource allocation resulting in the relative neglect of agriculture and rural sector as a whole. Therefore, in many Third World countries there was a widespread dissatisfaction (Rao, 1978).

From the rural side there were, in the fifties and sixties, similar empirically based concerns about what was later known as 'urban bias'. These concerns were broadly of two kind. In the first place, writers like Schickele (1968: Chapter 5) saw evidence of consistent urban-bias in economic policy propagated

by Adam Smith and others. Schickele, favouring Classicals, also added a class dimension to sectoral divide. According to him, the surplus extracted from agricultural produce by landlords and moneylenders was diverted to the urban sector, which was not reinvested in agriculture to generate rural livelihoods (Moore, 1984 : 13).

Second, Schickele (1968: Chapter 5 and 6) and other scholars like Dumont (1966) and Balogh (1966:238-44), primarily concerned with African developments, highlighted the expected role of welfare state which was totally unknown to Adam Smith. The central focus of these studies was the observation that human capital development had failed to benefit rural areas. There was a general feeling that public investment of all kinds were unduly concentrated on urban and industrial facilities. These concerns would have been alien to Adam Smith and other Classicals because they had no concept of the 'welfare state' (Moore, 1984 : 14). The concerns of Schickele, Dumont, Balogh and others may also be termed as 'empirical' in a very restricted sense that they emerged simply from observations; there was no attempt to link that to any exact theory of development. However, such attempts were underway.

In the late sixties and seventies three development economists; Lipton (1977a), Mamalakis (1969),<sup>6</sup> and Mitra (1977), put forward general theories which claimed to have provided explanation for slow economic progress in the Third World due to prevailing rural-urban relationship. Michael

Lipton's work particularly provided a new dimension to the debate on rural-urban relations as a major concern of political economy. There are substantial differences among Lipton (1977a), Mamalakis (1969) and Mitra (1977) in focus and approach. Moore (1984:14) has excellently comprehended their views as :

"Lipton argues that 'urban bias'-the diversion of resources to urban areas - is the cause of low growth and poverty. Mitra operating with a very similar politico-economic model, argues virtually the exact opposite; that in India and perhaps other countries it is the ability of the rural rich to distort terms of trade in their favour which has emerged as a major constraint on economic progress. Mamalakis argument is similar to Lipton's except that his model comprises several economic sectors, not simply rural and urban. It is, however, the urban sector which he identifies as the blood sucker".

Lipton (1977a) in his book "Why Poor People Stay Poor" sees distribution as the central concept of development policy because he argues that better policies would lead not only to improved distribution but also to higher rates of growth as conventionally measured. Lipton's distinguishing characteristic is that he presents the distributional issue virtually in terms of conflicts of interests between town and country. Lipton, (1977a:13) starts with a clarion call :

"The most important class conflict in the poor countries of the world today is not between labour and capital. Nor is it between the rural classes and urban classes. The rural sector contains most of the poverty, and most of the low-cost resources of potential advance; but the urban sector contains most of the articulateness, organisation and power. So urban classes have been able to 'win' most of the rounds of the struggle with the countryside; but in so doing they have made the development process needlessly slow and unfair. Scarce land, which might grow millets and beansprouts for hungry villagers, instead produces a trickle of costly calories from meat and milk, which few except the urban rich (who have ample protein anyway) can afford. Scarce investment, instead of

going into waterpumps to grow rice, is wasted on urban motorways. Scarce human skills design and administer, not clean village wells and agricultural extension service, but world boxing championships in showpiece stadia. Resource allocations, within the city and the village as well as between them, reflect urban priorities rather than equity or efficiency. The damage has been increased by misguided ideological imports, liberal and Marxian, and by the town's success in buying off part of the rural elite, thus transferring most of the costs of the process to the rural

<sup>7</sup>  
poor.

The important arguments of Lipton's work can be summarised as follows :

(i) The contradiction - 'centre - periphery' type is the main explanation of economic and political phenomena within Third World countries in their internal relationships.<sup>8</sup>

(ii) Rural areas are generally poorer than urban areas, contain the bulk of very poor and, moreover, within the countryside incomes are more evenly distributed. Equity theory, therefore, suggests a redistribution of resources from urban to rural areas.

(iii) Rural areas have more potential for productivity using scarce resources and more capacity for mobilising relatively surplus resources than do urban areas. Growth criteria should suggest a shift from urban to rural projects.

(iv) An important reason for existing imbalance and the failure to correct it is that urban interests and urban biased ideology dominate policy making.<sup>9</sup>

(v) Concentration on urban problems not only results in neglect of rural areas but also tends to increase inequality within the countryside, e.g. efforts to reduce urban food prices lead to concentration on the development of more prosperous farmers.

One of the most disturbing worries of Seers (1977 : 3) is about the use of rural and urban, farm and non-farm income measurement. According to him, official statistics on income quite inadequately cover rural income due to the measurement problems. Moreover, it also omits much rural but non-agricultural income. In brief, although Seers (1977 : 6) accepts, "... the evidence put forward is not necessarily to deny the existence of a socially important gap between the rural poor and part atleast of the urban population, in both income and service". Lipton (1977 b : 25) defends his position saying that, "my book is not about rural and urban income measurement, but about the causes and effects of levels and changes in the relative efficiency and well-being of the rural and urban sectors. Income underreporting is not systematically greater in rural than in urban areas..."

The overall disparity between country and town as a matter of fact, is created and maintained by government policies designed to assist metropolitan centres at the expense of rural areas. Such a policy, therefore, favours investment of substantially more domestic capital in non-agriculture than in agriculture relative to output per sector (Lipton, 1977 a : 180-215). This practice is not only inequitable, but is also

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inefficient. According to Lipton (1977a: 60-62) reallocation of investible resources in favour of agriculture would raise total national output, increase productivity of labour in agriculture relative to that in the rest of the economy, and reduce rural-urban inequality. Whereas, Byres (1979 : 223) finds the grounds for allocation of resources towards the countryside unconvincing because "even without the equity and efficiency props, demonstration of such a successful diversion of resources would certainly rescue something of the notion of urban bias".

Another severely criticized feature of Lipton's urban bias thesis is his use of the concept of 'class' and relation of the concept of the rural and urban sectoral categories (see Arkadie, 1977 ; Griffin, 1977; Rao, 1978; Byres; 1979). Moore (1984:19) puts it as,

"On the one hand Lipton talks of the rural-urban clash of interest. On the other hand he does not abandon class analysis of the more conventional kind, and indeed argues that rural 'elite'- the larger farmers who sell surplus foodgrains to the town - are in fact in alliance with urban interest". If part of the 'rural ', population in fact, benefits from urban biased policies, why talk of sectoral clashes at all, since conventional class terminology can describe the same phenomenon more accurately".

Griffin (1977 : 109) comments :

"We thus have a bizarre situation in which the people who control over half the land in rural areas are counted as beneficiaries of urban-bias while the people who account for over half the labour force in urban areas are assigned to the rural classes and suffer from urban bias. Call this urban bias if you insist, but at the bottom it appears that on the one side we have the urban capitalists, members of the bureaucracy and the professionals, urban labour aristocracy and the large landowners, while on the other side we have the small

farmers and tenants, landless agricultural workers and the members of the so-called informal sector".

Lipton, (1984) acknowledges in his revisited urban bias that dynamics of class in relation to surplus, the state and technology, were not adequately dealt with in his 'Why Poor People Stay Poor' of 1977.

Mitra (1977), a contemporary of Lipton, in his examination of urban-rural relationships in India emphasises on class relation according to the Marxist tradition, thus avoiding the problem associated with Lipton's model. Lipton (1984) argues that rural elite is persuaded to work in political alliance with the urban sector by the offer of input subsidies as compensation for policies which artificially lower the selling prices of agricultural products. Mitra, whereas, observes that there emerged in India in the sixties political alliance between the rural elite and urban bourgeoisie in which the rural elite trade their command of the mass rural vote banks for policies which increase market prices of agricultural products (Mitra 1977 : Chapter 8). This perspective obviously contrasts with Lipton's urban bias model which asserts that the state keeps "farm input prices 'artificially' high and the farm output prices 'artificially' low while rural credit and marketing are unnecessarily dear ; and that, contrariwise, non-farm inputs are cheapened and non-farm output prices raised by protection, while urban credit and marketing are far cheaper than rural (pp 288-307) " (Byers, 1979 : 229).

A significant difference between Mitra and Lipton

is that Mitra adheres broadly to the Marxian concept of the state which exists independent with the existing class interest (Mitra 1977 : 5 and 101). Lipton, on the other hand, sees some autonomy for the state - a capacity to act in political independence of class interest (Lipton 1977a:59) Moore (1984:22) differentiates it as "while Lipton sees his work as representing a break with existing analyses, Mitra locates himself within a well established tradition running through Marxism from Adam Smith and Ricardo, and organises his book along these lines. Explicitly in the Marxian tradition, he makes class the central concept of his work where Lipton emphasises sector". As a matter of fact, irony of the situation is that Lipton and Mitra have worked at the same time on the economics of rural - urban relations, considering the same politico - economic model but their findings are that in India there is 'urban bias' and 'rural-bias' respectively. Their methods and models unite more than their ideologies but policy preferences divide them.

The important distinguishing feature of Lipton's 'urban-bias' is that he has attempted to generalise his theory whereas Mitra's counter-Liptonian thesis about 'rural-bias' is limited to a case study of India. However, it has been claimed that Lipton's urban bias - evidence rests too heavily on India (Seers, 1977: 9; Baker, 1977: 171; Bayers, 1979:217) although according to Lipton (1977b : 31) it constitutes only one-third of the total evidence given in his work. To quote Byres (1979:217)

"... the frequency with which Indian evidence is quoted is striking, with India cited more frequently than any

other single country : so that sometimes one has the feeling that the Indian experience is the only experience which Lipton knows in any depth and that urban bias thesis should stand or fall on the Indian evidence".

According to Moore (1985 : 18) Lipton's "... analytical framework is Indian because it was primarily developed to deal with the Indian data (Lipton, 1968 and 1972)". However, Seers (1977 : 9), in brief, points out "while this book supports to be universal, as its sub-title suggests, it does seem to reflect primarily the socio-economic structure of India." Lipton (1977b :30), however, emphatically denies that his work does not primarily reflects socio-economic structure of India but urban bias as expressed in terms of ; income disparities, price twists, resource allocations, skill drains etc., as shown to prevail throughout the Third World, usually more severely than in India.

India is certainly important because rural-urban contrast is as sharp in India as anywhere other than India. There cannot be two opinions that different types of models suit different countries. In any framework there will be a clear cut trade - off between its flexibility for its application at the worldwide scale and its spectrum of analytical use. Lipton, of course, sees the existence of a socially important gap between the rural and urban people from a new angle but the question that lies unanswered is, how to explain it. Probably only when country specific frameworks explaining rural-urban divide will be prepared, a general model explaining underdevelopment in the global context through urban bias theory may be formulated.

## 2.2 Historical Process of Rural-Urban Divide i - precolonial and colonial history of India :

The major shortcoming noticed in Lipton's work is that he has not taken into account the historical roots of rural-urban divide to identify the reasons for relative strength of urban bias in some societies and weakness in others and also did not examine the structural conditions necessary for its eradication. Seers, (1977:19) giving utmost importance to historical analysis, comments that, "I can not do justice here to Michael Lipton's highly condensed treatment of this critical issue, mostly in Chapter I". Lipton nowhere mentions that developing countries had the great initial disadvantage of starting with the completely eroded structure and institutions inherited from colonial periods. These structures are typically characterised by the urban enclaves over the vast rural heartland of mass poverty (Rao, 1978 : 1699-1700). Lipton's (1977a : 77-86) dismissal of the argument that difference in urban bias in presence or absence of capitalism or in the impact of colonialism and neo-colonialism, is utterly unconvincing. According to Byres, "he seems to have little or no understanding of what the debate on the nature of the mode of production in poor countries is all about or, indeed, of what constitutes capitalism or socialism". As a matter of fact, impact of colonialism and neo-colonialism on production relations are important factors to determine the nature of urban-bias.

Ranadive (1987 : 214-215) analyses town-country side relationship in the context of India before hand emphasising the need of a historical approach to concieve any social problem in reality. She writes :

"I am convinced that for the purpose of scientific investigation, any social phenomenon needs to be understood along with its history, simply because it is impossible in the domain of social sciences to conceive of a process in the broad sense of the term with a 'zero level of history'. The only way to understand the modality of both continuity and change is to have the whole network of closely inter-related concepts because social phenomena are inherently dynamic in the sense that they are parts of an overall social structure which needs reproduction for its continued existence. If town country relationship poses a problem, the relationship needs to be understood. Understanding a problem requires dissection of the present and dissection of the present requires scanning of the past. Not only does looking at the present against the background of the past help us to see the present in its proper perspective but seeing the present in its proper perspective is necessary if we are to have any chance of foreseeing and influencing future".

Castells (1977 : 5), in 'Epistemological Introduction' of his book, considers that :

"... in order to arrive at the theoretical experiences proposed has consisted in examining this or that historical situation while trying to transform our understanding of it with the help of advanced theoretical instruments or, too, in showing the contradiction between the observations at one's disposal and the ideological discourse that were juxtaposed with them".

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On the historical development of cities Marx (1971 :  
77-78) says :

Ancient classical history is the history of cities, but the cities based on land ownership and agriculture ; Asian history is a kind of undifferentiated unity of town and country (the large city properly speaking, must be regarded merely as a princely camp, superimposed on the real economic structure) : the Middle Ages (Germanic period) starts with the countryside as the locus of history, whose further development then proceeds through the

opposition of towns and country ; modern (history) is the urbanisation of the countryside, not, as among the ancients, the ruralisation of the city".

The history of India also reveals that the rising and initial development of Indian towns occurred long before the beginning of the world industrial revolution. Ancient Indian cities appeared and developed as organising nuclei on the seats of irrigated farming, which in those days had a relatively high population density. There were commercial, handicraft, military, administrative and religious centres and they reflected the centuries long pre-capitalistic state of development, (Gadgil, 1971 : 6-8).

The precapitalist relations of production prevailing in the old cities and towns were such that they had spontaneously grown their own structure of socio-economic and technological interconnectedness with the countrysides (Marx, 1971 : 77-78). It happened due to the existence of technological unity between agriculture and domestic industry. Marx termed such social system as 'Asiatic mode of production in which there was no concept of private ownership in land'.<sup>14</sup>

The basic difference between feudalism of Europe and Asiatic mode in India was the stability of Asiatic mode of production. Many studies including those of Hindess and Hirst (1975) and Thorner (1966) have failed to understand the significance of Indian artisan industry which was in unity with agriculture. Therefore, unlike the West, the Indian economy has not undergone the following stages of development : the ancient

or the slave, the feudal, and the capitalist. The distinctive feature of India as well as Asiatic mode was the state ownership of the conditions of production. Therefore, the claim on the surplus labour of the producers was with the state. It was also because the production relations in these small communities were not based on exchange but use value (Gadgil, 1971 : 10) In fact, the artisans and other professionals were maintained at the expense of the whole community (Sen, 1981 : 29). Hence in ancient India rural-urban dichotomy was a rare phenomenon.

During Mughal India in the sixteenth and seventeenth centuries, urban population was very small in proportion to rural population but towns of that time were economically and culturally significant. Towns, performing diverse and overlapping roles, took different forms : political centres, administrative headquarters, places of pilgrimage and centres of manufacturing and commercial activities. There was no city which possessed the unique metropolitan attributes (Ranadive, 1987 : 227). There is a difference of opinion about the Mughal bureaucracy and its impact on the age old economic structure of city and countryside. According to Habib (1963 ; 319) :

"The jagirdar as an individual member of the governing class had no rights and privileges apart from those received from the Emperor. He could not manage his jagir just as he pleased, and had to conform to imperial regulations. The rate of land-revenue demand and the methods by which it was to be assessed and collected were all prescribed by the imperial administration. The Emperor also decreed what other taxes were to be collected. The conduct of the jagirdar and his agents was watched over and checked by officials such as qunungos and chaudhuris and fauzdars and newsprinters".

Sen (1982:37) explains its impact as :

"Hence the merchants and artisans in the oriental cities could not acquire power by balancing the feudal lords against the emperor. They had to remain satisfied with playing a role subordinate to the courts, noblemen, priests and soldiers. In the East, the city could not become a centre of bourgeoisie power to struggle first against feudal restraints and then against the state itself, as was the case in feudalism".

In medieval India, therefore, characteristic pattern of relations between village and town remained the same. Ranadive (1987 : 227), however, analyses the function of jagirdars and mansabdars as follows :

"This class was urbanised, disdained rural life and contained a considerable foreign element which was prevented from forming roots through a system of transfers of post as well as jagirs. With no incentive for maintaining or expanding-revenue paying capacity of agriculture on the part of the ruling-class, there was a drain of wealth away from the rural sector".

As a result, Ranadive (1982 :228) further adds :

"Surplus appropriated from agriculture and concentrated in the hands of the upper strata of ruling class was used for maintaining large number of servants and retainers - armed men, professionals, artists - and spent on extravagant display of luxurious living and hoarding of coins and treasures. Karkhanas did not undertake commodity production but concentrated on production of luxury articles directly for use. While commodity production was well developed - though no rural market existed for urban crafts - there were very few independent master craftsmen of any substance and putting out system was widely in use. Thus, while merchant capital had developed considerably, it did not develop into industrial capital".

In sum, Mughal rule was essentially a type of feudalism superimposed upon the villages and extracting a surplus

for the maintenance of its military and civil apparatus (Kemp, 1978 : 133). Mughal agrarian system thus had little tendency to change or to increase production. Such substantial change during the Mughal times started corroding ancient Asiatic mode of production. However, surpluses extracted from the peasantry by the Mughals were invariably funnelled back into the regional economy, which in turn supported and consolidated two mutually reinforcing processes of urbanisation and industrialisation (Saha, 1987 : 307).

The rural-urban dichotomy, which exists today in India, is said to be a product of colonial rule. It ruined the basic structure of the techno-economic connectedness between agriculture and domestic industry, imposing colonial mode of production<sup>17</sup> (Prasad, 1987). This mode of production was first superimposed by conferring private ownership in land on Taluqdars and Zamindars and second by interweaving centre-periphery nexus of market and trade relations killing indigenous capitalism in nascent stage (Mishra, 1984 : 6-9). Moreover, it linked India to the world capitalist system, putting it in a dependent position (Prasad, 1987 : 4).

The colonial rule, thus, converted India from being an exporter to becoming an importer of manufactured commodities. This process was accompanied by conversion of Indian agriculture into a source of primitive capital accumulation for the metropolitan centres (Sen, 1982 : 46-48). The point is further substantiated by Sen (1982 : 56), quoting parliamentary

papers, which reveal that in 1783, the House of Commons' Select Committee on administration of Justice in India remarked as follows:

"This letter contains a perfect plan of policy, both of compulsion and encouragement, which must in a considerable degree operate destructively to manufactures of Bengal. Its effect must be to change the wide face of that industrial country in order to render it a field of produce of crude materials subservient to the manufacture of Great Britain".

As a result of which British manufactured goods were forced into India while Indian manufactures were kept out of England by prohibitive duties. Historical facts seem to bear out the contention that the prior destruction of the Indian textile was a precondition for the rise of British Industry and it was done by determined colonial state intervention and not by laissez-faire (Saha, 1987 : 307).

India was not de-industrialised until 1813 (Bagchi, 1976 : 140 ; Sen 1982 : 57 ; Saha, 1987 : 309). Indian textile and silk goods were still superior to British products. The export of British manufactures to India became a life and death issue for British industrial capital when Napoleon Bonaparte banned the import of British commodities into Europe (Sen, 1982 : 57). In 1813 an enquiry was made by the House of Commons to ascertain how India could be developed as a market for the rising British machine industry. One of the members of the enquiry, in 1823, commented that India had been reduced from the state of a manufacturing to that of an agricultural country. Thus, on the basis of one-way free trade and prevention of direct

trade between India and Europe or other foreign countries, the de-industrialisation set in. To substantiate the process of intended de-industrialisation by the British, Bagchi (1976 : 143) quotes data on North-Western provinces (Uttar Pradesh today) as provided by the secretary to the Sudder Board of Revenue as follows :

"First, then, it may be stated decidedly that the diminished demand for English cotton has not been caused by increased Native manufacture. With few exceptions, there has been nowhere any such increase. On the contrary, there has, speaking generally, been a marked and distressing contraction of local manufacture. This ... is less observable in the Western districts, where perhaps from a sixth to a fourth of the looms in the cities and towns (though not in the outlying villages) have stopped working. But in the Eastern districts the trade has altogether delayed, and within two or three years falling - off is shown to have reached a third, and in some districts, a half of the looms; and even of the remainder a large portion is only worked occasionally. The weavers have be-taken themselves to agricultural or other menial labour, to menial service, emigration to the Mauritius and elsewhere, and even to begging". (Selections, 1864, p.116)".

In response to these politico-economic changes, a considerable spatial reorganisation took place in colonial India. The age old interconnectedness among its parts weakened considerably and system became amenable to a new type of integration. 'Dominance - dependence' relationship destroyed the indigenous production activities of the urban centres and disrupted the geographic specialisation they had achieved during the earlier period (Raza et.al 1981 : 76). According to Munshi (1974 : 19) "The system of exchange between the metropolitan economy and the colonial/dependent economy acted more like a cantilever bridge from where various arms of the enclaves hanged

down creating vortexes of exchanges in the colonial dependent economy, interconnected by a tenuous currency and transport network". The port towns became the foci of the suction mechanism which led to their enormous growth and to the process of general decay in their immediate hinterlands. Gadgil (1972 : 142) records this phenomenon in the following words :

"We know, for example, that in Clive's opinion the city of Murshidabad was in his day more populous than London : and that north India and Bengal at this time contained many big and populous cities. Again we have no reason to suppose that the urban population of India was in any way growing between 1800 and 1872. The only cities to which any growth at this time can be definitely ascribed were the ports of Calcutta, Bombay and Madras, and a few places in the interior like Cawnpore; but, on the other hand, there was certainly a great decrease to be accounted for in the population of a large number of old capital towns e.g., Dacca, Murshidabad, Lucknow, Tanjore etc. Indeed, considering that modern industry was almost non-existent in India at this time and that the extension of transport facilities was not yet largely advanced, it seems more probable that the percentage of the urban population in India was slightly bigger at the beginning of the century than in 1872".

Bombay, Madras and particularly Calcutta were major ports through which Indian cotton, wheat, rice, jute, tea, rubber etc. were exported to other countries and through which textile products, hardwares and manufactured goods from England were imported. Unlike the indigenous cities, Calcutta was not a settlement which emerged to serve local needs and it later developed to perform the expanded functions which the economy of the hinterland demands. Calcutta was primarily a 'transplant mechanism' for organising the extractive linkages which exists between a colony and the Imperial country (Raza and Habeeb, 1976: Munshi, 1974).

The 'drain theory' as put forward by great nationalist, Dadabhai Naoroji in 1860 argued that India was being impoverished by the export surpluses in her current account. Calculation of the proportion of invisible and debt servicing charges in the current account of the balance of payments was about five per cent of India's national income during 1898-1914,' which is indeed burdensome for a poor country like India. In Kemp's (1978:140) words :

"India's exports surplus was appropriated by Britain through a complicated mechanism of home charges and invisible services (shipping, insurance, etc.) to cover two-fifths of her enormous trade deficit with the rest of the world. It is no exaggeration to say that towards the end of the nineteenth century the export products secured from India's villages supported the entire structure of Britain's worldwide commerce and Empire".

As a result of the drain, hinterlands of Calcutta which comprised of the British provinces of Bihar, Bengal, Orissa and United Provinces became decadent loosing all its dynamics of growth. None of the court cities, not even Lucknow, showed any kind of dynamic growth related to commercial centres in British territories but rather experienced a process of de-urbanisation (Habib, 1984 : 10-11). The five districts constituting Awadh-<sup>19</sup> Unnao, Rai Bareli, Sultanpur, Pratapgarh and Faizabad reported a decline in number of towns above population 5,000 in 1838 from 43 to 15 in 1911. The total population of towns as per estimate stood at 374000 to 385000 in 1836 and only 186483 in 1911.<sup>20</sup> Another set of data given by Raza and Habeeb (1976 ; 197) indicates that Calcutta which was .01 times smaller than Bombay

in 1872 became 1.32 times its size in 1921. Lucknow which was the second largest town in the hinterlands of Calcutta, also declined in its relative importance. It is noticeable that the city of Calcutta which was 3.17 times larger than Lucknow in respect of population in 1872, became 7 times larger in 1921. The above mentioned situation prevalent during colonial period may be summarised in Ranadive's (1987 : 228) words :

"The new towns in all parts of the country had few linkages with local market in terms of labour supply, the market demand and consumption needs of their population. They were essentially 'enclaves' transplanted from outside and sustained by external links and eventually developed into metropolitan cities, delinked from the development of the rural area. These cities did not owe their growth to agricultural production and the contribution of the rural areas was negative in so far as they pushed out the destitutes. The pre-Independence period was a period of near stagnation in the Indian economy".

The dynamic urban industry was completely controlled by foreign capital, therefore, the process of industrialisation in India was not an organic growth as it was in Europe. In spite of differences based on their past social structure, economy and cultural history, the industrialisation process in European countries had a certain uniformity in that it was part of an economic system which was generated by internal economic forces. In India, thus what has been called 'proto-industrialisation'<sup>21</sup> which could have perhaps led to the typical progressive industrialisation could not grow in its soil due to the colonial impact (Kemp, 1978 : 135). In absence of a diversified urban industrial base, the industrial development in the colonial cities failed to create productive jobs in Indian

economy which led to the tertiarization of the colonial cities.

According to Raza (1981:81) :

"Excessive proliferation of the tertiary activities in the colonial cities was not associated with economic growth and development as was the case with the cities of the advanced countries of the West. It was on the contrary, the most manifest symptom of economic stagnation and decay associated with underdevelopment".

Merrington (1982:191) theorises 'town' and 'country' relationship in a transition from feudalism to capitalism as two discontinuties in history. He puts forward :

"The first consides with the extension of market in the territorial state, which reduces urban merchant economics of the feudal mode to a shrinking sphere of operations, undermining guild production by the growth of manufactures and rural industries ... The second break, which occurs with factory cities, expanded reproduction of the proletariat and capitalist agriculture, marks the take off into an autonomous urban growth ... it is evident that these qualitative re-definitions were not the result of 'towns' as protagonists of history : it was the dominant mode of production that determined the global conditions iithin which given towns prospered or not".

Thus the superimposed colonial mode of production developed metropolitan capitalism on one hand, it created conditions for sustaining pre-capitalist characteristics of production at the periphery on the other.

2.3 Town and Countryside in a Socialistic Pattern of Society:

Dethronement of British regime provided an unique opportunity to India for a fundamental departure from the policies pursued by the colonial government. In the Post-Independence period government became plan-conscious for promoting economic development. India was probably the pioneering country outside the Soviet and Socialist block to undertake long term economic planning with broadly defined goals and policies to promote development. Pandit Nehru, the first Prime-Minister, envisaged the need for industrialisation to eliminate mass poverty. He emphasised the role of the State to undertake large-scale industrialisation owing to lack of means and risk bearing capacity of the private sector to invest sizable fund in the areas requiring long gestation period.

Bombay plan, drawn up by a few industrialists headed by Tata and Birla called upon the state to perform an active role in laying the background for the future industrialisation in India. National Planning Committee towards the end of 1938 decided that the defence industry must be owned and controlled by the State. Its other important recommendations were : public utilities to be owned by the state ; all business to be licenced and regulated by public authority; banking to be licenced and regulated; and a national board to be formed to supervise insurance. After independence, the decisions of the National Planning Committee were adopted in a modified form in

the Industrial Resolution Policy (I.R.P.). The first I.R.P. was published by the Government of India on 6 April, 1948. The second Industrial policy Resolution of 1956, with a few differences, was in many ways identical to the first. A worthnoting point of departure in the Second Industrial Resolution Policy of 1956 was the understanding of a need for the establishment of a 'socialist pattern of society' aiming at the following :

- (i) to increase production to the maximum so as to achieve higher levels of national and per capita incomes.
- (ii) to achieve full employment
- (iii) to reduce inequalities of income and wealth, and
- (iv) to provide social justice.

In the words of Nehru :

"Socialism involves higher grade of production, more production and more wealth being produced, and equitable distribution".

However, according to Ranadive (1987:229) the view of Nehru about socialism published in a series of articles under the caption "Wither India" in 1933 were not similar to the socialist pattern he perceived later because :

"Nehru had explicitly recognized that one can not gloss over 'the inherent and fundamental conflict between economic interests within the nation', particularly 'between [the] possessing classes as a whole and the others'. In fact, he initially thought that in India, only a revolutionary plan could solve the two related questions of the Land and industry.. 'Yet by 1939 he made out a case for accepting 'the present structure ... as a jumping-off ground'. Not only did he fear that 'a premature conflict on class lines would lead to a break-up and possibly to prolonged

inability to build anything but he also believed that by beginning with 'planning apart from socialism' one would 'inevitably arrive at some form of socialism'."

The important question which arises from the above mentioned quote is that what alternative courses of action were open to him to transform the economy of India. He could have either decided to lead to full scale socialist revolution thereby dissolving the existing various complex modes of production - partly Asiatic, partly feudal and partly capitalist. Alternatively, he could have let the existing social structure to continue while creating the state as a single most powerful organ to mould the future development of society. He opted for the second alternative. In this way, the fact that Nehru's faith that by beginning with 'planning apart from socialism' and the manner which he adopted lends credence to Marx's contention as quoted by Ranadive (1987 : 230) :

"where the class struggle is pushed aside as a disagreeable "course" phenomenon, nothing remains as a basis for socialism but "true love of humanity" and empty phraseology about "justice". His strategy, therefore, was one of creeping socialism which, with increasing production in the state sector, would minimise the concentration of wealth and income in the hands of a few capitalists and at the same time could implicitly provide assurance for the worker's needs."

In words of Nehru :

"Obviously, most persons who believe in a socialist pattern must believe in the public sector growing at the time. But it does not necessarily mean that the private sector is eliminated even at a much larger stage. In regard to the private sector and the public sector, I think the criteria should be basically two. One is to have as much production as possible through all the means at our disposal, and the second is prevention of accumulation of wealth and economic power in individual hands. If we have

only the first one, it may lead subsequently to unsocial, undesirable and harmful consequences. Therefore, we must aim right from the beginning and all the time at the prevention of this accumulation of wealth and economic power".

[Quoted from Sen(1982:104)]

This makes it clear that what Nehru envisaged as socialism in a mixed economy was the gradual enhancement of the state's economic and political power without changing the ownership pattern. Ranadive (1987 : 231) evaluates the performance of planned development over the last decades in the following words :

"There is no need to go into subsequent history which is too well known to bear repetition. Over the last three decades and a half, the goals of development policy have been reformulated and redefined. There has also been tinkering with the techniques of planning - from perspective planning to rolling plans via occasional plan holidays. In addition to planned plan holidays there have also been unplanned ones with the change in the government in power. In fact, in the recent period, planning has tended to loose much of its significance".

One of the glaring dichotomic situations related to agriculture and industry existing in India even today is well reflected by Rao (1983 : 20) in his evaluation of India's national income. The land : man ratio, as measured by operated area per head, declined from 1.28 acres per head in 1954-55 to 0.96 acres per head in 1970-71. Over the period 1960-1980, the share of agriculture in GDP declined from 50 percent to 37 percent, while in labour force there is a slight decline from 73 percent to 70 percent. The overburdened agriculture has led to the cityward migration of the people from the lower strata of the rural hierarchy, though the employment opportunities in urban organised sector have not grown in proportion to the increased

labour supply. Therefore, the rural hierarchy is reproduced in urban areas (Ranadive, 1987 : 240).

Another important index, which reflects agriculture -  
<sup>27</sup>  
 industry relationship, is the terms of trade between the two. The unpublished data as quoted by Ranadive (1987 : 237) reveal that in India during 1952-53 to 1966-67, prices received by agriculture increased at 5.57 percent per annum, whereas prices paid by agriculture increased at 3.98 percent per annum. As a result, the barter terms of trade improved in favour of agriculture at 1.53 percent per annum. During 1967-68 to 1980-81 prices received by agriculture increased at an annual rate of 6.81 percent while those paid at 8.53 percent per annum. The terms of trade turned against agriculture. However, during the first period (i.e. 1952-53 to 1966-67) income terms of trade improved even more than the barter terms of trade, increasing at a rate of 3.61 percent per annum. During the second period (i.e. 1967-68 to 1980-81) income terms of trade improved in favour of agriculture at 3.73 percent per annum because of the increase in market surplus at the rate of 5.41 percent.

In a study by Rath (1985 : 451-481) ratio of indices of  
<sup>28</sup>  
 farm harvest prices and prices of inputs from non-farm sector for different crops in different states has been calculated since 1961-62 to 1982-83. The study concludes that "compared to beginning of the sixties, the commodity or barter terms of trade of farmers increased very significantly upto 1968-69. After that

there was a decline. This decline was more in relation to the index involving household expenditure than that involving farm inputs and more for cereals than for other crops. Therefore, one may infer that farmers growing cereals using little input purchased from the non-farm sector saw their terms of trade decline to near the position of the early sixties. Farmers growing other cereals with significant purchased inputs, as well as those growing pulses and cash crops had still favourable terms of trade" (Rath, 1985 : 480-481).

Therefore, it seems that in the given extremely skewed distribution of land, the 'big landlords' have gained from the high support prices, subsidised inputs, liberal credit and negligible agricultural taxation. The town and countryside nexus which benefited urban elite relatively more than to the rural elite,<sup>29</sup> has resulted into a confrontation between town and countryside. The fight in the present days has shifted from between 'rich and poor' to between 'town and country' i.e. between those who have cornered all the benefits of development and those who have been deprived of them (Parmar, 1988 : 6).

The failure of planning to ensure a take-off into a self sustaining growth and to create a just society has accentuated socio-economic tensions. If growing economic disparities and regionalism reflect among other things, a sense of frustration at not having had a fair deal after forty years of independence, strengthening of rural-urban divide indicates that the need to enhance industrialisation process in India continues to be most serious problem even today. 'Where have the things

gone wrong ?' becomes an important question for deep probing in the context of town-countryside relationship, though there exist many other dichotomic situations in our country. To answer the above posed questions analysis of the process and pattern of urbanisation in relation to the development process seems to be relevant but of course, with adequate empirical support.

APPENDIX 2.1

Farmers' Terms of Trade, 1961-62 to 1982-83.

A : Index of the ratio of the index of the farm harvest prices of individual crops to the composite index of the prices of inputs purchased by the farmers from the non-farm sector for each crop in different states.

Uttar Pradesh

1961-1962 = 100

Year	Barley	Wheat	Paddy
1961-62	100	100	100
1962-63	91	99	103
1963-64	132	129	97
1964-65	158	167	140
1965-66	172	164	182
1966-67	252	253	224
1967-68	159	157	208
1968-69	143	155	150
1969-70	154	168	147
1970-71	123	137	138
1971-72	137	134	134
1972-73	175	135	154
1973-74	212	195	162
1974-75	164	146	152
1975-76	77	92	95
1976-77	103	108	97
1977-78	115	113	118
1978-79	102	106	116
1979-80	118	107	141
1980-81	103	92	107
1981-82	88	92	100
1982-83	103	99	110

B : Index of the ratio of the index of the farm harvest price of produce received by the farmers to the index of prices paid by rural household for goods of household consumption purchased from the non-farm in different states.

## UTTAR PRADESH

1961-1962=100

Year	Paddy	Wheat	Barley	Gram	Sugarcane	Groundnut	Rapeseed & Mustard	Cotton
1961-62	100	100	100	100	100	100	100	100
1962-63	99	95	80	99	96	83	96	102
1963-64	91	122	117	131	118	100	110	89
1964-65	129	155	139	146	-	123	119	111
1965-66	156	141	137	147	-	138	131	115
1966-67	174	198	185	218	-	169	154	111
1967-68	170	129	119	150	-	130	111	110
1968-69	127	131	111	143	-	119	121	106
1969-70	129	147	122	167	117	145	132	109
1970-71	118	113	93	119	107	155	130	116
1971-72	105	105	98	136	119	110	127	118
1972-73	117	104	123	171	153	141	127	104
1973-74	117	148	152	238	133	181	182	119
1974-75	154	144	144	201	134	162	127	138
1975-76	104	100	82	-	-	-	-	-
1976-77	91	96	89	130	110	135	169	137
1977-78	112	106	113	186	104	145	165	160
1978-79	102	92	90	169	-	110	130	135
1979-80	113	87	101	173	-	143	148	96
1980-81	103	88	102	227	-	165	149	114
1981-82	112	103	101	198	-	140	131	150
1982-83	119	107	115	168	-	164	143	148

Source : Rath (1985: 464 and 471).

Chapter 2

1. 'Urban Bias' as Lipton (1977a :44) symbolises with a 'biased' ball which does not roll exactly in the direction that it is bowled. Similarly a systematic tendency to reject rural sector or favour urban sector can properly be stigmatised as bias towards the urban sector.
2. 'Urban bias' as an ideology of development is more blatant in Ricardo and Mc Culloch, the classical heirs of Smith who rationalised exceptional industrialisation and 'de-agriculturalisation' of output and workforce in Britain. Agriculture suffers from diminishing returns and industry increasing returns, hence, intellectual descendants of Ricardo favoured transfer of resources from agriculture to industry.
3. The marginal principle of allocation (MPA) avers that any resource will eventually be (if people are rational) divided in a particular way to maximise the benefit to its owners. If it does not, the user can increase satisfaction by shifting marginal units from uses where they add less to benefit, to uses where they add more.
4. Kautsky summarises this process in chapter entitled 'Capitalism versus Peasant' in which exploitation of the country by the town is more accurately described. The unfortunate part of the book is that it is not available in English. However, Lipton (1977a : 115-121) put forward his ideas excellently.
5. A more modest and less debatable interpretation is that instead of trying to abolish the large cities-as often suggested by Engles - the productivity of urban agglomerations should be used for the benefit of the country as a whole by distributing it in the form of service especially in the countryside. It is doubtful whether in a present of private sector which contains most of the means of production the public distributive agencies can be equitable and favourable to countryside.
6. The Work of Mamalakis is not discussed in detail because it is primarily an empirical study of Latin America, so relatively unknown. Mamalakis identifies in his work that the biggest obstacle to Latin American development has been the continuity of its defective allocation process, which persistently directed resource surpluses to the support of cities, services and consumption (Mamalakis, 1971 : 108). He ultimately develops a model of urban privilege very similar to that of Lipton's.

7. Lipton (1977:72-86) devotes an entire chapter to refute alternative explanations of rural underdevelopment. According to these alternatives, rural deprivation is caused by (1) excessive domestic reliance on capitalist mode of production ; (2) excessive integration in the world economy; and (3) poor (rural) people themselves, that is, poor people are lazy or inferior in some way. Lipton (1977a : 74) dismisses these assertions as "scapegoats" since "the real goat is urban bias with which lies the main blame for the failure of development to benefit the rural poor".
8. Lipton (1977a : 29) argues "that most LDCs, especially in Latin America, adopt both (a) industrial protectionist policies and (b) protection diluting policies (eg. via import licensing) with the source principal object : to help the urban interest. Both integration and protection are handled by an urban elite, with the main object of improving its internal terms of trade with the rural sector". 'Dependencia' also favours it but in a very broad framework of analysis.
9. Similarly, Lefebvre (1978:2) observes that the required policies are known. The problem is to break through the deadlock caused by dominance of congruent urban class interests.
10. Lipton is not without support because Gugler (1982:187) argues that "there would appear to be an approach that promises a more efficient allocation of labour between the rural and urban sector as well as a reduction in the extreme inequalities that characterise most Third World countries. It will aim at improving rural living standards by channelling productive resources to the rural areas and/or by directing a large share of income to them".
11. Mitra (1977,121) argues "the shift in terms of trade has implied a shift in real incomes in favour of the farming community considered as an aggregate vis-a-vis the rest of the nation, the resulting gains have been exclusively monopolised by the service-rising farmers and their trading partners; landless labourers and small farmers, who are net purchases of grains from the market, have been as adversely affected by the rise in farm prices as the non-agricultural prices in general".
12. Lipton (1984:144) believes that social scientists must take risk for some unhistorical comparisions.
13. Marx termed such socio-economic system of India as 'Asiatic mode of production'.

14. Mishra et.al. (1984) explains that unity between agriculture and industry was first because agriculture and domestic industry were economically and technologically interdependent; second, the techno-organisational and socio-economic structure of agriculture and artisan based craft production were not basically different from one another. Rhoads (1972 : 253) deals with ideological issues of city and countryside in the context of India and China and confirms that there was very much less of an urban-rural split or conflict in Asia. He adds "The Asian city saw itself accurately as rooted in a rural base which sustained it, and which it, existed to serve. 'Serve' might sometimes be read 'exploit' but it was under any circumstances a close and consciously symbolic relationship".
15. According to Marx (1971 : 77-78) "Ancient classical history is the history of cities, but cities based on land ownership and agriculture; Asian history is a kind of undifferentiated unity of town and country".
16. Mishra et.al. (1984:7) observes that despite evolution of Mansabdari or Jagirdari system leading to emergence of 'nobility' and 'gentry' in village and town, the techno-organisational and socio-economic structure of production did not undergo any fundamental change.
17. The colonial mode of production is different from the capitalist mode of production. The British were interested in the capitalist penetration of India : the share of commodity extraction had to be considerably increased without disturbing fundamentally the mode of production itself.
18. The 'Emperical Gazetteer of India' vol III (Chapter IV, p. 168-256) reports the following geographical industrial specialisation in United Provinces of Agra and Awadh (Uttar Pradesh of today) as :
- Lac turnery : Practically each town used to have it but in Agra, Lucknow, Fatehpur, Benaras and Mirzapur it was distinctly observed. A large part of the product was exported to Europe and earned 20 Lakh rupees during 1868-69.
  - Calico-printing with wooden blocks : Lucknow, Kanauj, Farukhabad, Jahangirabad (Bulundshahar district) and Jafarganj (near Fatehpur)
  - Boots and shoe trade : Lucknow, Agra, Jhansi and Saharanpur.

d. Textiles :

(i) Coarser broadcloth :

Banaras, Bulundshar, Fyzabad, Jaunpur, Mirzapur and Rae Bareli

(ii) Sikandarabad (Bulundshar district), Mau (Azamgarh), Mahmudnagar in Lucknow, Jais in Rae Bareli, Tanda in Fyzabad and Benaras.

(iii) Mulberry silk : Dehradun, Pratapgarh and in southern Mirzapur.

e. Wool Products : Garhwal, Almora and Nainital.

f. Carpets : Agra and Mirzapur

g. Silk embroideries of Agra and Chikan and Kamdani work of Lucknow was famous and a large part of it was exported to Europe.

19. Habib (1984 : 12) argues the case of de-urbanisation in central region of U.P. citing the following statistics.

District	Year	Number of Towns 5000 pop. in censuses of	Total Population of the towns
Unnao	1838	9	10300 to 114000
	1869/72	5	37842
	1881	5	38467
	1911	5	37809
1 Rae Bareli	1838	13	96000
	1869/72	4	29218
	1881	4	38370
	1911	4	40545
Sultanpur	1838	5	39000
	1869/72	1	5708
	1881	1	9374
	1911	1	9519
2 Pratapgarh	1838	11	102000
	1869/72	1	6240
	1881	1	9756
	1911	2	16041
3 Fyzabad	1838	5	134000
	1869/72	3	55635
	1881	6	111773
	1911	3	82569

1. The 1881 population for Solon not being available, it has been assumed to be the mean of the 1869/1872 and 1891 figures (5699).

2. Bela and Pratapgarh counted as one town.

3. Ayodhya and Faizabad (Fyzabad) counted as one town.

21. The primacy of Calcutta relative to Bombay and Lucknow from 1872 to 1921 has been prepared by Raza and Habeeb (1976:197) as ;

\*

Degree of Primacy for Calcutta (1872-1921)

Calcutta	1872	1881	1891	1901	1911	1921	Absolute increase (1921 over 1921)
1. Within the Indian Empire (vis-a-vis Bombay)	.01	1.23	1.30	1.71	1.55	1.32	1.31
2. Within its hinterland (vis-a-vis Lucknow)	3.17	3.87	4.14	5.38	6.19	6.93	3.76

\* 'Degree of Primacy' refers to the ratio of the population of the largest city to the second largest in the region under consideration.

- 21. Mandel ( 1972 ) calls first phase of industrialisation as proto-industrialisation followed by 'industrial revolution', the phase of modern machine industrialisation corresponding to mechanism of economic change. Proto-industrialisation created capital accumulation, market connections, entrepreneurial skills and agricultural progress. As a result modern industry tended to locate, even when change in product specialisation was involved in the region where there had been handicraft industry before.
- 22. The success of the First plan in Soviet Union during 1928-33 in sharp contrast to the crisis of the Great Depression in the capitalist world made the entire world plan-conscious. The unique feature of Indian planning is that it covered almost all sectors of the national economy unlike many other developing countries as well as developed countries.
- 23. National Planning Committee of 1938 was a representative committee in true sense as it consisted of fifteen members of Congress and representatives of the provincial governments. Among the members were well known industrialists, financiers, economists, professors, scientists as well as representatives of the Trade Union Congress and the Village Industries Association.
- 24. Sen (1982 : 92-99) elaborately deals with the major policy formulations during 1938 to 1956 with a broad emphasis on first and second Industrial Policy Resolutions.

25. The term 'socialist pattern of society' was first used in non-official resolution in the Indian Parliament in 1954. The word 'socialist' was incorporated in our preamble of the constitution by 42nd amendment.
26. Quoted from Lok Sabha Debates, Third series, Vol II p. 2062.
27. Net barter terms of trade measures the change in the relative unit value of farm and non-farm output, income terms of trade reflects the economic betterment of the sector.
28. Nilakantha Rath (1985) prepared two indexes. The first is the ratio of the index of the farm harvest price of individual crops to the composite index of the prices of inputs purchased by the farmers from the non-farm sector for each crop. The second index measures the ratio of the index of farm harvest price of produce received by farmers to the index of prices paid by rural household for goods of household consumption purchased from the non-farm in different states. The figures have been given in the appendix of the chapter.
29. Mahendra Singh Tikait, leader of the peasantry of Western U.P., and Sharad Joshi are not fighting for personalised aggrandisement but provision of good public services and social justice for rural areas. Their fight is not for rich farmer or poor farmer but between countryside and town.

CHAPTER 3CHARACTER AND TREND OF URBAN GROWTH3.1 Spatial Characteristics of Towns and Their Population:

The Third World regional development approach counterposes proponents of market equilibrating mechanism who believe that with economic development and integration of factor markets, regional inequalities are reduced, therefore, a form of self balance is achieved (Wilmoth, 1978 : 45). On the other hand, proponents of the 'alarmist view' argue for a more radical state intervention aimed at achieving greater equalisation sooner, based on the view that market forces are disequilibrating and that regional convergence is not an automatic process (Hirschman, 1958 ; Myrdal, 1957 ; Perroux, 1950).

Economic growth tends to favour certain geographic areas. Certain regions and cities attract economic activities and populations more than others. Nevertheless, throughout the Third World there is a clear tendency for industry, commerce, agriculture and other economic sectors to concentrate in particular regions (Gilber and Gugler, 1986). Based on the extent of this tendency, certain regions are considered dynamic while others declining.

The recently established National Commission on Urbanisation, in its interim report released in January, 1987, has refused to share "alarmist view" but nonetheless 'recognises

urban centres as 'heroic engines of growth', not only as developing skills and creating wealth for the nation but also as generating employment to reduce distress migration from rural areas. In section 2.5, it is observed in the interim report, about the spatial distribution of the cities and towns, that "not only does this represent a fairly well-balanced distribution of urban settlements, but that growth is also equitably distributed". This statement has created considerable confusion in the present debate on urbanisation in the country.

The above policy perspective has the support of a section of Indian as well as Western scholars, who believe that the urban hierarchy and the changes therein in India pose no major problem for the spatial system. Mohan (1984: 8) observes that "there is a widespread erroneous belief that large towns and cities have been growing much faster than smaller cities and towns in India and that the latter have suffered and even declined as a result". This is simply not true. They have also been warning that any major intervention by the government to alter the growth pattern of urban centres belonging to different size classes is likely to be expensive, inefficient and ineffective in the long run.

Berry (1961:579) had argued in the mid sixties that "the size regularity applies throughout the world for developed countries and countries like India and China, which in addition to being large, also have long urban tradition". Building upon the argument further, Mills (1972 : 119) had observed in the

seventies that "the evidence and literature on the stability of city size distribution suggest that public policies can alter the distribution but the task is likely to be very difficult". He further adds that the growth rates of population in towns of different size categories tend to be uniform.

An important question arises as elaborated by Kundu (1988 : 5), "whether the growth of 555 towns out of 3245 towns in 1981 Census in India, above the national average of 46.02% and their locations in different regions and states can be regarded as evidence of a well-balanced distribution of urban settlements" and in such cases can urban growth be equitably distributed ?

Many empirical studies suggest that there are serious distortions in the Indian urban structure even having planned years after independence. Kundu (1983 : 42) observes that "post-independence India saw not much of an alteration in the pattern of urbanisation. What followed in continuation of the urban growth in colonial days was the unparalleled primacy of the colonial maritime nodes which still dominate Indian economic and urban scene at the cost of crippled existence of smaller urban centres... This polarisation is shown by the fact that the share of population of Class I cities to total urban population in the country during 1901-71 recorded a significant rise, while those of Class II and III remained almost stagnant and those of Class IV, V and VI towns declined considerably". It is worth noting that urban population in 1981 increased six times than that of

1901, whereas the number of urban centres has only less than doubled.

It is indeed unfair to believe that a large number of towns growing above the national average and a substantially larger number of towns growing at a slower pace necessarily suggest a balanced urban system. It, of course, provides ground for an indepth analysis of the pattern of urban growth and of the spatial distribution of fast and slowly growing towns across the regions in U.P.

### 3.1.1 Decadal growth rate of population in towns

To understand the pattern of population growth in different classes of towns, decadal growth rates of population since 1901 to 1981 have been given in Table 3.1.1. At the beginning of the century there was a negative decadal growth rate for all classes of towns as well as for U.P. (Urban). It was due to the widespread epidemic plague around 1911. In 1921, all classes of towns except Class III and IV registered positive growth rates. In 1931, U.P. registered 12.81% growth rate with a remarkably high growth rate for Class III, 67.06%, and 22.30% in Class I. In 1941, the decadal growth rate of U.P. doubled and growth rate of Class I towns accentuated from 22.30% in 1931 to 71.21% in 1941. But during the same period, towns of Class II and VI registered negative growth rates. In 1951, the growth rate of U.P. came down from 26.00% to 22.93%. In this year all classes of towns reported positive growth rates except Class I, Class III and Class V towns which declined, whereas rest of the classes

Table 3.1.1

'Decadal Population Growth Rates in Different  
Classes of Towns in U.P., 1901 to 1981

YEAR	Total	Class-I	Class-II	Class-III	Class-IV	Class-V	Class-VI
1901	-	-	-	-	-	-	-
1911	-08.98	-03.63	-12.11	-12.29	-07.86	-15.41	-2.78
1921	+00.61	+01.01	+14.43	-02.35	-14.22	+00.39	+10.46
1931	+12.81	+22.30	+04.76	+67.06	+09.73	-03.91	-11.66
1941	+26.00	+71.21	-04.40	+35.34	+06.18	+15.91	-21.04
1951	+22.93	+49.08	+02.74	+04.21	+08.87	+09.44	+15.21
1961	+09.90	+32.03	+43.00	+27.06	+04.51	-52.31	-95.80
1971	+30.68	+37.00	+20.37	+31.07	+23.85	+04.64	+32.14
1981	+61.22	+45.47	+89.00	+19.16	+106.27	+194.06	+909.22

Source : General Population Tables, Part II-A, Census of India,  
U.P., 1971 & 1981.

showed increment.

The decade 1961, registered a low tempo of urbanisation as is obvious from the decadal growth rate of U.P. which declined from 22.93% to 9.90%. The growth rate of Class I declined further to the level 32.03% whereas growth rate for Class II and Class III moved to 43.00% and 27.06% respectively. The growth rate of Class V and Class VI towns declined significantly registering -52.31% and -95.80% respectively. The Government's plans of heavy industrialisation failed to influence the growth pattern of urban population in 1961 as was predicted by the demographers, but it did accentuate in 1971 in U.P. There was a record growth rate in U.P., Urban , (30.68%)the highest ever in the previous decades. There was a decline in the growth rate of class II towns which was 43.00% in 1961 and 20.37% in 1971. The decade 1981 was one of rapid urban growth as the growth rate of U.P. doubled, reporting highest ever growth rate of 61.22%. The growth rate of Class I and Class II towns may said to be moderately high as compared to the growth rates of Class V and VI which were remarkably as high as 194.06% in Class V and 909.22% in Class VI. The Class III registered a decline in growth rate from 31.07% in 1971 to 19.16% in 1981.

From the analysis it is clear that the decadal growth rate in U.P. in urban areas or in different classes of towns has been subject to erratic fluctuations particularly in lower classes of towns. It is partly due to the natural calamities (Plague), political set-backs (Partition of India), and

economic planning (Industrialisation), partly also due to the change in the definition of urban areas by the census authorities over the decades. To determine whether human settlement system in U.P. has a tendency of concentration towards higher classes in the town hierarchy, movement of towns in different classes is essential for study.

### 3.1.2 Hierarchical movement of towns

Table 3.1.2 depicts the movement of towns in different classes in 1961, 1971 and 1981 respectively. Since 1901, there were 8 Class II and 2 Class III towns which emerged as Class I towns in 1961. There was a movement of 11 Class III and 3 Class IV towns towards Class II, 37 Class IV and 8 Class V towns to Class III, 36 Class V and 9 Class VI to Class IV respectively from 1901 to 1961. There were 25 Class VI towns which moved to Class V during 1901 to 1961. The movement of towns in 1971 was rapid particularly from the Class IV and V. During the decade, 5 Class II, 8 Class III, 23 Class IV, 28 Class V, and 4 Class VI towns moved one class up in the hierarchy. In 1981, the trend of movement of towns became faster towards the top three classes of towns. There were 7 towns in Class II of 1971 which moved to Class I in 1981, 25 Class III towns became Class II towns, 38 Class IV towns, 40 Class V, and 14 Class VI towns moved one class higher respectively in 1981.

From the statistics of movement of towns it is clear that with the increase in the rate of urbanisation the speed of movement of towns has also increased in all classes;

Table 3.1.2

Movements of Towns From 1901 to 1981 in  
Different Classes in U.P.

## A: Movements From 1901 till 1961

Class in 1901	Class in 1961					
	I	II	III	IV	V	VI
II	8	-	-	-	-	-
III	2	11	-	-	-	-
IV	-	3	37	-	-	-
V	-	-	8	36	-	-
VI	-	-	-	9	25	-

## B: Movement in 1971

Class in 1961	Class in 1971				
	I	II	III	IV	V
II	5	-	-	-	-
III	-	8	-	-	-
IV	-	-	23	-	-
V	-	-	-	28	-
VI	-	-	-	-	4

## C: Movement in 1981

Class in 1971	Class in 1981				
	I	II	III	IV	V
II	7	-	-	-	-
III	-	25	-	-	-
IV	-	-	38	-	-
V	-	-	-	40	-
VI	-	-	-	-	14

Source : Prepared From General Population Table Part II-A.  
Uttar Pradesh Census of India 1971-1981.

significantly more so in the first three classes of towns. It shows a tendency of concentration of towns in first three classes (Class I, II and III) which is likely to become more accentuated in future due to no possibility of movement of towns beyond Class I (Mohan, 1984). The severity of concentration of towns in higher classes will more or less depend on proportionate emergence of new towns in lower classes of towns than the movement of towns in higher classes.

The analysis reveals that there exists a tendency of concentration of towns towards the first three classes in the settlement hierarchy. To determine whether or not U.P. has a top-heavy urban settlement system, a study of relative share of number of towns and population in these classes is essential.

### 3.1.3 Distribution of towns and their population in different classes

The Table 3.1.3 shows composition of towns and their population in different classes of towns since 1901 to 1981. To understand the urban settlement pattern before independence and after independence, the table is divided into two parts : covering the periods from 1901 to 1951, and from 1961 to 1981 .

Over the period 1901 to 1951 there is no significant change in the proportion of towns but there is a clear cut tendency of concentration of population in top three classes of towns. The percentage share of Class I towns to total towns increased from 1.53% in 1901 to 3.46% in 1951 whereas the percentage of population in the same class increased from 23.86%

Table 3.1.3

Class-Wise Distribution of Towns and their Population, 1901-1981.

Class of Towns	Number of Towns	Popula- tion						
	1981	1971	1971	1981	1961	1961	1951	1951
Class I	4.26	51,43	7,51	57,06	6,63	54,43	3,43	45,21
Class II	5.40	12,71	6,82	10,83	6,59	11,76	2,59	9,03
Class III	13.93	12,34	22,87	16,70	21,31	16,63	9,07	14,40
Class IV	30.53	13,36	31,06	10,44	30,74	11,01	15,33	11,43
Class V	33.53	8,65	27,30	4,74	30,33	5,92	36,50	13,83
Class VI	12.35	1,46	4,44	0,23	4,34	0,23	33,03	6,05
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Continued...  
  
20  
15

Table 3.1.3

Class of Towns	Number of Towns	Popula- tion	Position								
1941	1941	1931	1931	1921	1921	1911	1911	1901	1901	1901	
Class I	2.77	37.36	1.85	27.49	1.58	25.36	1.67	25.26	1.53	23.85	
Class II	2.53	10.61	2.55	13.96	2.70	15.34	2.38	13.49	2.40	13.97	
Class III	9.22	16.51	6.71	15.34	4.05	10.66	4.03	11.00	4.37	11.42	
Class IV	16.36	13.47	15.05	15.83	12.61	15.87	15.48	18.63	15.50	18.48	
Class V	35.94	15.42	31.71	16.81	31.76	19.51	33.33	19.50	35.81	20.95	
Class VI	33.18	6.63	42.13	10.57	47.30	13.24	43.09	13.12	40.39	11.32	
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	

Source : Prepared from General Population Tables, Part II-A Uttar Pradesh, Census of India 1971-1981.

to 45.21% over the same period. There was stagnation in the share of Class II towns ranging between 2.40% to 2.59% over these decades, though the proportion of population in Class II to total population declined slightly from 13.97% in 1901 to 9.03% in 1951. The Class III towns registered increase, both in the percentage share of towns from 4.37% in 1901 to 9.07% in 1951, and proportion of population from 11.42% to 14.40% in the same period. Though the percentage share of towns of Class IV oscillated between 15.50% to 15.33% over the period, the proportion of population decreased from 18.48% in 1901 to 11.43% in 1951. Class V towns almost maintained their apportionment of towns from 35.81% in 1901 to 36.50% in 1951 with ups and downs at different points of time. The percentage of population declined from 20.95% in 1901 to 13.88% in 1951 in case of Class V towns. The share of Class VI towns decreased from 40.39% in 1901 to 33.05% in 1951 whereas their population decreased from 11.32% to 6.05% over the same period.

The urban settlement pattern in U.P. in the colonial period attained a top-heavy structure having proportionately high concentration of population in Class I cities. Approximately 9.00% of the total towns constituted Class I, II and III but shared as high as about 50.00% of the total population in 1901. These towns were 15.00% of the total towns but shared 70.00% of the total population in 1951.

In the second period, 1961 to 1981 there was a continuance of the same pattern of distribution of towns and

their population as observed during 1901 to 1951. In 1961, the percentage share of total number of towns increased significantly from 3.46% to 6.69% in Class I and from 2.59% to 6.59% in Class II towns. There was a significant increase in apportionment of population in these classes from 45.21% in 1951 to 54.43% in 1961 in Class I towns and from 9.03% to 11.76% in Class II towns. There was a sharp increase in the percentage share of Class III and Class IV towns in terms of the number of towns which increased from 9.07% to 21.31%, and from 15.33% to 30.74%, whereas population stagnated at about 17.00% and 11.00% respectively. The decade 1961-71 also followed the existing settlement pattern which got slightly more skewed towards the higher classes of towns.

The Class I and the Class II towns constituted 13.28% of the total towns which shared 66.20% of the total population in 1961. In 1971, 14.33 Class I and Class II towns were composed of 67.89% of total population. The structure shows sustenance of colonial top heavy structure till 1971. Due to the marked increase in the number of new towns in the last three classes of towns in U.P. (385 new towns out of 705 towns) in 1981, the distribution appeared more skewed in terms of the percentage share of number of towns and population. There was a significant decline in Class III towns in their apportionment of towns and population. The Class I and II towns comprised 9.66% of the total towns and 64.19% of the total population which was not different from the pattern in any of the previous decades. Although the bottom-most three classes, which were insignificant

over the whole period, shared a sizable proportion of the remaining towns and population.

### 3.1.4 Regional distribution of towns according to their growth rates

If we consider urbanisation as a bi-product of development, growing regional disparities and regional development pattern are expected to influence the structure of urban settlement in different regions. The state, U.P. is divided in five geographical regions and a number of studies (Tewari, Singh, Tewari) show that these regions exhibited remarkably different levels of development. It has been also empirically supported that there is increasing divergence in the level of development among the regions over the decades. The Table 3.1.4 has been prepared to classify the towns according to their growth rates in different regions of the state for 1961-71 and 1971-81 period.

The average growth rate of urban population for the state during the decade 1961-71 was 30.68% which is a moderate growth rate according to our classification of population growth rate of towns. There were 84(60.43%) towns of the Western region falling in this category of which 27.34% of the towns reported a slow growth rate. In the Eastern region, 43 (66.15%) out of the total towns were in the moderately growing towns. The towns of the Central region depicted a strong tendency of getting concentrated in the group of moderately growing towns as 20 (71.43%) towns were in this class. Remaining towns of the

Table 3.1.4

Region-wise Distribution of Towns According to Their  
Population Growth Rates in 1961-1971 & 1971-1981.

Regions \ Towns having Growth rate	W E S T E R N			E A S T E R N		
	1961-71	1971-81	1961-71	1971-81	1961-71	1971-81
Less than 0%	0	0	0	0	1	(25.00)
0-20%	38	(48.11)	13	(44.83)	19	(24.05)
		(27.34)		(9.56)		(1.52)
20-40%	84	(51.22)	76	(54.68)	43	(29.23)
		(60.43)		(55.88)		(9.09)
40-75%	13	(46.43)	43	(44.33)	3	(26.22)
		(9.35)		(31.62)		(50)
75% +	4	(33.33)	4	(23.53)	0	(23.74)
		(2.88)		(2.94)		(50)
Total	139	(49.12)	136	(47.55)	65	(22.97)
		(100)		(100)		(100)

Continued...

Table 3.1.4

		C E N T R A L		H I L L	
Regions \	Towns having Growth rate	1961-71	1971-81	1961-71	1971-81
Less than 0%	0	0	0	0	3 (9, 63) (75, 00)
0-20%	7 (25.0)	(8, 86) 2 (7.41)	(6, 90) 6 (21.43)	(7, 59) 5 (16, 13) (17, 24)	
20-40%	20 (71.43)	(12, 20) 17 (62.96)	(12, 23) 7 (25)	(4, 26) 6 (19, 35) (4, 31)	
40-75%	0 (0)	6 (22, 22)	(6, 19) 8 (28, 57)	(28, 57) 14 (45, 16) (14, 43)	
75% +	1 (3, 57)	(8, 34) 2 (7.41)	(11, 76) 7 (25)	(58, 33) 3 (9, 68) (17, 65)	
Total	28 (100)	(9, 89) 27 (100)	(9, 44) 28 (100)	(9, 89) 31 (100) (10, 84)	

Continued... .

## T O T A L

## B U N D E L K H A N D

1971-81

Regions\ Towns having Growth rate

1961-71

1961-71

1971-81

		1961-81	1971-81	1961-71	1971-81
Less than 0%	0	0	0	0	4 (1.40)
0-20%	9 (39.13)	3 (11.39)	3 (11.54)	79 (10.34)	29 (100)
20-40%	10 (43.48)	6 (1.10)	7 (26.92)	164 (5.04)	139 (27.92)
40-75%	4 (17.39)	(14.29)	28 (57.69)	28 (15.46)	57 (57.95)
75% +	0 (0)	(0)	1 (3.85)	12 (5.83)	97 (9.89)
Total	23 (100)	8 (13)	26 (100)	233 (9.69)	286 (100)

Note : Figures in parenthesis represent row-wise and column-wise Percentages to total respectively.

Source : Prepared from town Directory, Part X - A, U.P. 1971 & 1981.

Eastern and the Central regions registered slow growth rates. In the Hill region, towns were quite evenly distributed in different groups classified according to growth rates although the concentration of towns was slightly towards classes defined as having 'high' and 'very high' growth rates. The towns of Bundelkhand region also depicted a tendency towards moderate and high growth rate, although the share of the Bundelkhand and Hill regions was only 19.00% of the total towns. During 1971-81 the average growth rate of Uttar Pradesh recorded a significant rise over the growth rate of 1961-71's and was 61.22% which falls in the category of towns registering high population growth rate. In the Western region 43 (31.62%) towns were in the class (40-75%) containing average growth rate. A large number of towns 76 (55.88%) continued to be moderately growing towns. The Eastern region also had 19 (28.79%) such towns falling in the category of 'high' growth rate and 33 (50.00%) were 'moderately' growing towns. Out of the total towns growing at a 'very high' speed, 41.18% towns were from the Eastern region. Maximum share of the towns in the Hill and the Bundelkhand region was in the category of 'high' growing towns constituting 14 (45.16%) and 15 (57.69%) towns. The Central region also reported 62.96% towns of its region in 'moderately' growing category of towns followed by 22.22% towns falling in the category of high growth rate of towns.

The analysis of the table reveals that in 1961-71 a large number of towns were concentrated towards the average value, i.e., the population growth rate of the state. However, sizable number of towns of Western and Eastern U.P. were falling

in the group other than that containing average growth rate during the same decade. In 1971-81, the tendency of towns to deviate from the average growth rate sharpened as compared with 1961-71 in different regions. The divergence is more glaring in the advanced regions like the Western, the Central or the Eastern, than in Hill or Bundelkhand region.

3.1.5 Distribution of towns growing faster than  
the average growth rate

Table 3.1.5 presents the composition of towns reporting higher than the state average growth rate in different regions of the state in 1961, 1971 and 1981.

Table 3.1.5

Region-Wise Distribution of Towns Reporting Population  
Growth Rate Higher than the State Average, 1961-1981.

Region/ Year	Western	Central	Eastern	Hill	Bundel- khand	Total
1961	34 (44.74)	07 (9.20)	15 (19.74)	13 (17.11)	07 (9.21)	76 (100.00)
1971	16 (47.06)	02 (5.98)	03 (8.82)	10 (29.41)	03 (8.83)	34 (100.00)
1981	28 (46.36)	07 (9.09)	20 (25.98)	13 (16.88)	09 (11.69)	77 (100.00)

Note : The figures in parenthesis represent their percentage shares.

Source : Town Directory, x-a, Census of India, U.P., 1981.

The Western region contained maximum towns, which reported growth

faster than the state average, in absolute terms as well as in percentage at all points of time. There was a significant increase of such towns in the Eastern region, which enhanced its share from 19.74% in 1961 to 25.98% in 1981. There was a slight decline in percentage share of these towns in the Hill region, whereas rest of the regions observed a marginal increase in such proportions. The Eastern region is a developing region reporting increase in the number of towns having higher than the average growth rate of the state whereas the Western region which is a developed region registered a decline of such towns. From Tables 3.1.4 and 3.1.5 it is observed that the Eastern region has a higher degree of imbalance than the Western region because in the Eastern region relatively large number of towns are growing at a faster rate than the average growth rate. Other regions have not shown any significant change over the decades.

### 3.1.6 Class-wise distribution of towns in different regions

Table 3.1.6 has been prepared to highlight the regional and class-wise distribution of towns in 1961, 1971 and 1981 respectively. The percentage share of total towns of the Western region reported a decline from 49.38% in 1961 to 46.02% in 1971 and 43.62% in 1981. The percentage share of towns in the Eastern region improved from 19.75% in 1961 to 24.23% in 1971 and 25.84% in 1981. The Central region observed a gradual increase in its share from 11.93% in 1961 to 11.07% in 1971 and 14.44% in

Table J.1.6

Class-wise and Region-wise Distribution of Towns During 1961-1981.

	WESTERN 1971			CENTRAL 1971		
	1961			1971		
CLASS I	8 (50)	16,68 (56,54)	12 (56,54)	17 (56,52)	2 (12,5)	2 (9,9)
CLASS II	12 (75)	12 (60)	12 (9,02)	15 (40,54)	1 (6,25)	2 (6,25)
CLASS III	26 (50)	31,66 (50)	35 (53,24)	48 (56,47)	7 (11,5)	7 (10,00)
CLASS IV	37 (46,10)	30,83 (46,44)	40 (30,08)	28 (34,15)	14 (18,20)	9 (28,13)
CLASS V	37 (51,5)	36,83 (41,25)	33 (24,81)	87 (37,66)	5 (17,20)	5 (18,75)
CLASS VI	- (-)	- (-)	1 (10,00)	92 (34,05) (47,42)	- (11,40)	- (27,36)
TOTAL	126 (49,36)	100,00 (46,02)	133 (45,62)	100,00 (45,62)	29 (11,93)	100,00 (11,07)

Continued...

Table 3.1.6

	EASTERN		WESTERN		SOUTHERN		NORTHERN	
	1961	1971	1961	1971	1961	1971	1961	1971
CLASS I	4 (8.36) (25)	6 (8.57) (27.27)	8 (27.59)	8 (4.70)	1 (3.84) (6.25)	1 (3.55) (4.25)	1 (11.79) (13.55)	1 (13.45)
CLASS II	3 (6.30) (18.75)	4 (5.71) (20)	10 (27.03)	10 (5.88)	-	-	1 (0.35) (6)	2 (0.57) (5.49)
CLASS III	11 (22.90) (21.2)	12 (17.14) (17.91)	10 (11.76)	10 (5.88)	2 (7.69) (3.8)	2 (5.97)	4 (10.55) (15.97)	6 (10.71) (17.06)
CLASS IV	14 (9.11) (18.20)	22 (11.43) (24.45)	14 (17.07)	14 (8.23)	5 (19.25) (6.50)	7 (23.34) (7.78)	7 (23.34) (17.78)	26 (46.43) (31.71)
CLASS V	16 (31.33) (22.20)	24 (34.79) (30.00)	75 (32.47)	75 (44.12)	8 (11.10)	11 (36.57) (11.75)	11 (36.57) (11.75)	10 (17.85) (4.30)
CLASS VI	-	2 (2.86) (20.00)	53 (27.52)	53 (31.19)	10 (38.48) (10.00)	6 (20.00) (60.00)	11 (19.64) (5.67)	11 (19.64) (5.67)
TOTAL	48 (19.75)	100.00 (24.23)	70 (24.23)	100.00 (25.84)	26 (16.71)	100.00 (16.71)	30 (16.38) (8.50)	56 100.00 (8.50)

Continued...

Table J.1.6

		BUNDI KHAND		1981		1981		TOTAL	
		1961	1971	1961	1971	1961	1971	1961	1971
CLASS I	1	(5.00)	1	(4.17)	1	(3.45)	(2.00)	(100.00)	(100.00)
		(6.25)		(4.25)					
CLASS II			1	(5.00)	1	(6.20)	(6.00)	(100.00)	(100.00)
				(4.17)					
CLASS III	6	(10.00)	7	(29.17)	10	(20.60)			
		(11.0)		(10.45)		(11.76)			
CLASS IV	7	(35.00)	8	(33.33)	2	(4.00)			
		(9)		(8.89)		(2.44)			
CLASS V	6	(10.00)	6	(25.00)	22	(44.00)			
		(8.30)		(7.50)		(9.52)			
CLASS VI	-		1	(4.16)	12	(24.30)			
				(10.00)		(6.19)			
TOTAL		20	100.00	24	100.00	30	100.00		
		(8.33)		(9.38)		(7.66)			

Note : Figures in parenthesis represent row-wise and column-wise percentages to total respectively.

Source : Calculated from Census of India, U.P., 1961-1981.

1981. The Bundelkhand and the Hill regions registered a declining trend in the percentage share of towns. The concentration of class I towns is observed both in the Western and the Eastern regions but the rate of increase in the Western region is higher than observed in the Eastern region. Out of the total number of Class I towns, the Western region shared 50.00% and the Eastern region shared 25.00% towns respectively in 1961. The percentage share increased to 54.54% in the Western region and 27.27% in the Eastern region in 1971. The Western region shared 58.62% of the total Class I towns and the Eastern region shared 27.59% of the similar towns in 1981. The percentage share of rest of the regions in Class I declined over the years. The share of Class II towns declined over the years in the Western region whereas it registered an increase in all other regions, particularly so in the Eastern and the Central regions. In the Western region, the percentage share of Class III towns increased from 50.00% in 1961 to 52.24% in 1971 and 56.47% in 1981. Contrary to this trend there was a decline in the percentage share of towns of the Eastern region in Class III towns from 21.20% in 1961, to 17.91% in 1971 and subsequently to 11.76% in 1981. It reveals that the speed of movement of towns from Class IV and Class V towards Class III in the Western region is similar to the movement of Class III and II towns towards Class I, whereas in the Eastern region the movement of towns from Class III towards Class I and Class II is much faster than the movement of Class IV and V towards Class III. The lower order towns in the developed Western region are dynamic in nature than those in the developing Eastern region. Therefore it has resulted in more

1981. The Bundelkhand and the Hill regions registered a declining trend in the percentage share of towns. The concentration of class I towns is observed both in the Western and the Eastern regions but the rate of increase in the Western region is higher than observed in the Eastern region. Out of the total number of Class I towns, the Western region shared 50.00% and the Eastern region shared 25.00% towns respectively in 1961. The percentage share increased to 54.54% in the Western region and 27.27% in the Eastern region in 1971. The Western region shared 58.62% of the total Class I towns and the Eastern region shared 27.59% of the similar towns in 1981. The percentage share of rest of the regions in Class I declined over the years. The share of Class II towns declined over the years in the Western region whereas it registered an increase in all other regions, particularly so in the Eastern and the Central regions. In the Western region, the percentage share of Class III towns increased from 50.00% in 1961 to 52.24% in 1971 and 56.47% in 1981. Contrary to this trend there was a decline in the percentage share of towns of the Eastern region in Class III towns from 21.20% in 1961, to 17.91% in 1971 and subsequently to 11.76% in 1981. It reveals that the speed of movement of towns from Class IV and Class V towards Class III in the Western region is similar to the movement of Class III and II towns towards Class I, whereas in the Eastern region the movement of towns from Class III towards Class I and Class II is much faster than the movement of Class IV and V towards Class III. The lower order towns in the developed Western region are dynamic in nature than those in the developing Eastern region. Therefore it has resulted in more

region. Therefore it has resulted in more unbalanced pattern of human settlements in the Eastern region than in the Western region.

### 3.1.7 Region-wise distribution of towns in different classes of towns

The Table 3.1.6 also highlights regional distribution of towns in different classes. Class IV, V and VI constituted 61.66% of the total towns in 1961 in the Western region, 65.50% in the Central region, 62.44% in the Eastern region, 88.47% in the Hill and 65.00% in the Bundelkhand regions. In 1971, the Western region shared Class IV, V and VI 55.64%, the Central 59.38%, the Eastern 68.58%, the Hill 80.01% and the Bundelkhand 62.49% of the total towns. In 1981, the town became more concentrated towards the last three classes of towns due to the phenomenal growth of new towns in this decade. Class IV, V and VI constituted 77.05% of the total towns in U.P. whereas the Western region shared 72.13%, the Central 78.94%, the Eastern 83.54%, the Hill 83.93 and the Bundelkhand 72% respectively of the total number of towns. Such a heavy concentration of towns in the last three categories reflects that the state of Uttar Pradesh is developing a sound urban base having a large number of medium and small towns. To determine whether urban settlement pattern is reaching towards balance, analysis of economic base of towns is essential. The economic base of towns will reflect the dynamics of growth of small and medium towns and their capability to transmit growth impulses to the hinterlands.

The main findings of the above analysis may be summarised as :

- (i) The urban growth rates since 1901 to 1981 do not follow any pattern in particular. They have fluctuated considerably over the above said period due to natural, socio-economic or political reasons.
- (ii) The speed of movement of Class II and Class III towns towards Class I is faster than the speed of movement of towns in other classes towards Class II and Class III towns. Owing to this fact, all classes except Class III are reporting very a high growth rate of population. The process is leading the urban settlement system of U.P. towards a top heavy structure.
- (iii) Heavy concentration of population is observed in Class I and Class II towns. The tendency of concentration of population continues from 1901 to 1971, although a break in this tendency appears in 1981 due to the emergence of a large number of towns and people in last three classes in the hierarchy of towns due to reclassifications.
- (iv) Regional distribution of towns has a tendency to concentrate in the class containing average growth rate of the state during 1961-71. The pattern becomes divergent in 1971-81 in all regions, particularly more so in the Western and the Eastern regions. It is an evidence of increasing imbalance in urban development pattern in the state.

(v) From the regional and class-wise analysis of distribution of towns during 1961-1981, it appears that concentration of Class I towns has become relatively severe in the Western and the Eastern regions which are respectively the developed and developing regions of the state. There is a decline of Class II towns in the western region over the decades. It reflects that the region is developing a tendency towards attaining an anaemic base of second order towns which facilitate growth impulses to the rural areas through other small order towns. Contrary to this, an increase in the percentage of share of the Class II towns is a positive sign for developing a sound urban settlement pattern. It will accentuate the future development process of the regions.

(vi) There is a phenomenal growth of new towns in the last three categories of towns. The rapid urbanisation in last three decades due to growth in old towns and emergence of new towns is a step in the direction of strengthening the base of urban settlement system.

### 3.2 The Economic Structure of Cities and Towns:

Urban growth being a complex phenomenon, knowledge regarding its nature and various other aspects has come from different disciplines. One of the inferences, emerging from many theories explaining urban growth from the economic point of view,<sup>1</sup> is that urban growth is a function of basic economic activities of towns. These theories put forward that stimulus for initial growth in towns should come from a single or group of activities

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mainly in the secondary sector. When this original growth stimulus has generated a sufficiently strong impulse to lift the economy to a certain level, other derivative growth forces such as growth in tertiary sector should take over. Urban growth, therefore, should be viewed in a time sequence of different stages in which each stage in development becomes a function of the previous stage. (Sundaram, 1977).

The conscious aspirations of the planners to bring about socio-economic changes in India are well reflected in the series of Five Year Plans. These plans are aimed at achieving greater mobility of resources in all directions. Development process, therefore, followed migration of population and transfer of resources from one area to another, from countryside to the town, and from one town to another town. In this process, urban centres, indeed, function as 'nerve centres' to generate growth impulses which enhance pace and content of economic development and change . The experience of uneven development in different regions in India as well as in U. P. signifies that while certain towns have assumed dynamic role, some remained stagnant in this process. It demands intensive investigation of economic functions in towns of U.P., to determine whether or not urban growth, which is essential to promote balanced economic development, is functional in generating productive economic base in towns.

### 3.2.1 Functional economic activities in towns:

Table 3.2.1 shows distribution of towns characterised as mono-functional towns, bi-functional towns, or multi-functional

Table 3.2.1  
Classification of Towns According to Economic Functions in 1961 and 1971 \*

Economic Activity	Mono-Functional			Bi-Functional		
	1961	1971	1961	1961	1971	1971
1. Service	83 (51.55)	(65.35)	66 (59.46)	(49.60)	42 (29.09)	(53.84) 19 (17.12) (28.35)
2. Primary Activity	3 (18.75)	(2.36)	25 (30.49)	(18.79)	5 (31.25)	(6.40) 14 (17.07) (20.89)
3. Industrial	28 (37.33)	(22.06)	26 (29.21)	(19.59)	25 (33.33)	(32.05) 21 (23.60) (31.34)
4. Transport	11 (91.67)	(8.66)	13 (92.86)	(9.77)	-	1 (8.33) (1.49)
5. Commercial	2 (1.00)	(1.57)	3 (8.11)	(2.25)	6 (30.00)	(7.69) 12 (32.43) (17.93)
Total	127 (100.00)	133 (100.00)	78 (100)	78 (100)	67 (100)	67 (100.00)

Continued...

Table 3.2.1

Continued...  
.....Economic  
Activity

## Multi-Functional

## Total

	1961	1971	1961	1971	1961	1971
1. Service	36 (22.36)	(46.15) (23.42)	26 (10.25)	(19.54) (32.35)	161 (100.00)	(56.69) (5.63)
2. Primary Activity	8 (50.00)	(10.25) (52.44)	43 (28.24)	(32.35) (31.57)	16 (100.00)	(111 (100.00))
3. Industrial	22 (29.34)	(28.24) (47.19)	42 (47.19)	(31.57) (100.00)	75 (26.41)	82 (100.00)
4. Transport	1 (7.14)	(1.28) -	-	-	12 (100.00)	14 (100.00)
5. Commercial	12 (60.00)	(15.38) (59.46)	22 (16.54)	20 (100.00)	(7.05) (100.00)	37 (100.00)
Total	79 (100)	133 (100.00)	284 (100)	(100)	333 (100)	(100.00)

\* Note: The table has been prepared by pooling the bi-functional and multi-functional towns on the basis of their first major economic activity respectively. The figure, e.g., 19 represents that 19 bi-functional towns had service as their major economic activity in 1971. The same procedure has been followed to define multi-functional towns.

Source: Prepared from Town Directory, Part VI-A, Census of India, U.P., 1971.

towns on the basis of their economic activities. The percentage of Service towns decreased from 56.69% in 1961 to 33.34% in 1971. There was a tremendous rise in the share of towns having primary activities as one of the functions from 16 (5.63%) in 1961 to 82 (24.62%) in 1971. There was no substantial change in the percentage share of Industrial and Transport towns during 1961 and 1971. However, Commercial towns increased from 20(7.05%) in 1961 to 37 (11.11%) in 1971. There were 83 (65.35%) Service towns out of the total 127 mono-functional towns in 1961. The share of these towns, in 1971, declined to 66 (49.60%) out of a total of 133 mono-functional towns. A strikingly high growth rate in mono-functional towns having primary activities is observed, the number increasing from 3 (18.75%) to 25 (30.49%) during 1961-1971. There were 28 (37.33%) such Industrial towns in 1961 which declined to 26 (29.21%) in 1971. The Transport and Commercial towns observed a marginal rise from 11 (8.66%) to 13 (9.77%) and from 2 (1.57%) to 3 (2.25%) respectively in 1971 over 1961.

The bi-functional Service towns declined from 42 (29.09%) to 19 (17.12%) during 1961-1971, whereas such towns having primary-activity as the most important economic activity raised their share from 5 (31.25%) to 14 (17.07%) over the same period. The bi-functional Industrial towns decreased from 25 (33.33%) to 21 (23.60%) from 1961 to 1971. The Commercial bi-functional towns doubled in number from 6 to 12 although in percentage terms there was a marginal rise from 30.00% to 32.43% during 1961-1971.

The multi-functional Service towns registered a decline from 36 (22.36%) to 26 (23.42%) during 1961-1971 whereas towns having primary activity increased from 50.00% to 52.44%. A significant rise in multi-functional Industrial towns is also exhibited as there were 22 (29.34%) such towns in 1961 and 42(47.19%) in 1971. A marginal rise in multi-functional commercial towns in percentage terms from 15.38% to 16.54% is also visible.

The row-wise figures in Table 3.2.1 describe the composition of towns in absolute terms and in percentage as mono-functional, bi-functional and multi-functional for each economic activity. The mono-functional Service towns increased from 51.55% to 59.46% in 1971 over 1961. Such bi-functional towns were 42 (29.09%) in 1961 and 19 (17.12%) in 1971. Multi-functional Service towns decreased in absolute figures although there was a marginal increase from 22.36% in 1961 to 23.42% in 1971. The mono-functional and multi-functional towns having primary activities increased from 3 (18.75%) to 25 (30.49%) and from 8 (50%) to 43 (52.44%) during 1961 and 1971 respectively, although such bi-functional towns recorded a decrease from 31.25% to 17.07% over the same period. The mono-functional and bi-functional Industrial towns declined from 28 (37.33%) to 26 (29.21%) and from 25 (33.33%) to 21 (23.60%) respectively from 1961 to 1971. However, there was a considerably high rise in multi-functional Industrial towns from 22 (29.34%) in 1961 to 42 (47.19%) in 1971. The Commercial towns increased from 2 (1%) to 3 (8.11%) in mono-functional towns and from 6(30.00%) to 12(32.43%)

in bi-functional towns during 1961-1971; there was a slight decrease in multi-functional commercial towns.

The main conclusions, which may be drawn from the above explained table are as follows :

- (i) A high dominance of Service towns in U.P. is a legacy of the colonial rule, although a declining trend of such multi-functional service towns indicates that 'service' as a major economic activity is unable to develop complementary relationships with other economic activities. The existence of 'service' as the most important economic activity prohibits dynamic growth of towns to a great extent.
- (ii) A decline in mono-functional and bi-functional Industrial towns, whereas rise in multi-functional Industrial towns, is indicative of the fact that industrial activity as a major economic activity in towns coalesces well with other economic activities to sustain and promote dynamic growth in towns.
- (iii) Transport is perceived as an economic activity which should be associated with other productive economic activities. An insignificant proportion of multi-functional and bi-functional Transport towns reflects dysfunctionality of economic activities existing in towns.
- (iv) A relatively high dominance of primary activities in mono-functional and bi-functional towns exists in U.P. From which it may be inferred that primary activities in towns find it difficult to develop complementaries with other economic

activities, therefore, restricting dynamic growth in towns. The increasing dominance of mono-functional towns having primary activities may be because a large number of 'expanded villages' having least urban economic characteristics are treated as urban areas by the Census on non-economic grounds.

### 3.2.2 Relationship of bi-functional economic activities in towns

Nothing much can be said about the urban process in the state unless a detailed investigation of the combinations of different economic activities is performed. Table 3.2.2 shows distribution of bi-functional towns specifying their economic activities in 1961 and 1971. The towns having combination of primary activities with service increased from 3 (4.17%) to 6 (8.95%). The bi-functional towns having combination of commercial activities with primary activites were 1 (1.39%) in 1961 and there were 5 (7.46%) such towns in 1971. The towns having combination of commercial and service activities remained 18 during 1961-71 although in percentage terms it increased its share by 1.86% from 25.00% in 1961 to 26.86% in 1971. The bi-functional towns combine industrial activities well with primary activities as their share increased from 3 (42.86%) to 11 (47.83%). The bi-functional, whereas, having combination of service with industrial activities, declined from 44(61.11%) to 15 (22.38%). The towns having combination of industrial economic activities with commerce increased from 3 (4.17%) to 8 (11.94%) during 1961-1971. There were only two towns in 1971 of which one combined primary activities with transport and the other combined service with transport.

Table 3.2.2

Distribution of Bi-Functional Towns in 1961 &amp; 1971.

Primary Activity	Service		Commerce		Transport		Commerce		Total	
	1961	1971	1961	1971	1961	1971	1961	1971	1961	1971
1. Service	3(4.17)	6(8.95)	-	-	-	-	-	-	3(4.17)	6(8.95)
2. Transport	-	1	-	-	-	-	-	-	2(2.98)	
3. Commerce	1(1.39)	5(7.46)	18(25.00)	18(26.86)	-	1	-	-	19(26.39)	24(35.83)
4. Industry	3(42.86)	11(47.83)	44(61.11)	15(22.38)	-	1	3(4.17)	8(11.94)	50(69.44)	35(52.34)
5. Total	7(9.72)	23(34.32)	62(86.11)	34(50.75)	-	2(2.98)	3(4.17)	8(11.94)	72(100.00)	67(100.00)

Note: Figures in parenthesis represent respective percentage share to total towns.

Source : Prepared from Town Directory, Part VII-A, Census of India, U.P., 1971.

The main findings of the table may be put forward as:

(i) The bi-functional towns having a combination of primary activities with service or industry have grown over the period 1961-71.

(ii) There was a decline in bi-functional towns having alliance of service with industry during 1961-1971; bi-functional commercial-service towns registered a marginal rise.

### 3.2.3 Multi-functional economic association in towns

From Table 3.2.3, which exhibits distribution of towns according to their multi-functional economic activities in 1961 and 1971, it is evident that in 1961 maximum number of multi-functional towns, 33 (41.77%) had a combination of commerce and industry with service. There was an increase in the number of such towns from 33 to 40 whereas in percentage terms it declined from 41.77% to 30.07% during 1961-1971. There were 27 (34.17%) multi-functional towns in 1961 having a combination of primary activity and service with industry, the share of such towns declined to 18 (!3.53%) in 1971. A remarkably high rise in the number of multi-functional towns having a combination of primary activity with commercial and industrial activities was registered as having increased from 3 (3.80%) in 1961 to 45 (33.84%) in 1971. The towns having primary activities with transport and commerce decreased considerably from 11 (13.92%) to 1 (0.07%) during 1961-1971.

The following are the findings of the table :

Table 1.2.1

Distribution of Multi-Functional Towns in 1961 and 1971.

		Service and Transport			Commerce and Industry			Primary Ac. & Commerce			Total
		1961	1971	1961	1971	1961	1971	1961	1971	1961	
1. Primary Activity	2	2	11	1	3	45	-	-	-	10	44
	(2.53)	(1.50)	(11.92)	(1.07)	(3.8)	(55.34)				(15.45)	(55.64)
2. Service Activity	-	-	3	33	40	-	-	-	-	16	61
			(3.79)	(2.25)	(41.77)	(36.07)				(13.53)	(46.57)
3. Industry	-	-	1	-	-	27	16	-	-	30	22
			(1.16)			(34.17)	(11.53)			(37.97)	(116.80)
4. Total								79	111		
								(100.00)	(120.00)		

Source: Prepared from Town Directory, Part V-A, Census of India, U.P., 1971.

Source : Prepared from Town Directory, Part VI-A, Census of India, U.P., 1971.

- (i) There was an increase in multi-functional towns during 1961-1971 having a combination of primary activity with industry and commerce.
- (ii) There was a decline in multi-functional towns having industrial activities with commerce and service and also towns having a combination of industrial activities with primary activities, commerce and service.
- (iii) The number of multi-functional towns having unproductive service and transport, economic activities with primary activities declined during 1961-1971.

#### 3.2.4 Functional classification of rapidly growing towns

Table 3.2.4 highlights functional classification of towns reporting growth rate higher than the national average during 1961-1971 and 1971-1981. There were 13 bi-functional, 9 mono-functional and 9 multi-functional towns reporting growth rate above national average during 1961-1971. The distribution of such towns in 1971-1981 changed as there were 28 mono-functional towns, 18 bi-functional and 31 multi-functional towns in U.P. If a look is had at the nature of relationship between economic activities in these towns, it is found that there were 9 service based mono-functional towns in 1961-1971. During 1971-81, there were 6 Primary Activity mono-functional towns sharing 21.43%, 15 mono-functional Service towns sharing 53.57%, 5 industrial towns sharing 17.85% of the total mono-functional rapidly growing towns respectively. A striking feature is observed in rapidly growing

Table J.2.4

Functional classification of towns reporting higher than the National average growth rates  
During 1961-1971 and 1971-1981.

## A: Mono- and Bi-Functional Towns

Economic Activities	Primary Activity	Service		Transport		Commerce		Industry		Total	
		1961-1971/1971-1981	1961-1971/1971-1981	1961-1971/1971-1981	1961-1971/1971-1981	1961-1971/1971-1981	1961-1971/1971-1981	1961-1971/1971-1981	1961-1971/1971-1981	1961-1971/1971-1981	1961-1971/1971-1981
1.Primary Activity	-	6	1	3	-	1	-	1	-	1	1(4,5)
2.Service	-	-	9	15	-	-	9	10	1	19(36,4)	25(54,15)
3.Transport	-	-	-	-	1	-	-	1	-	-	2(4,35)
4.Commerce	-	-	2	-	-	-	1	-	1	2(4,10)	2(4,35)
5.Industry	-	-	-	-	-	-	-	-	5	-	5(10,36)
6.Total	-	6	12	12	-	2	-	12	10	6	32(100,30) 45(110,30)

Continued..

14  
20

Table 3.2.4

## B: Multi-Functional Towns

Economic Activities	Primary Activity	Service	Commerce	Transport	Industry	Total
1961-1971(1971-1981) 1961-1971(1981)	1961-1971(1971-1981) 1961-1971(1981)	1961-1971(1971-1981) 1961-1971(1981)	1961-1971(1971-1981) 1961-1971(1981)	1961-1971(1971-1981) 1961-1971(1981)	1961-1971(1971-1981) 1961-1971(1981)	1961-1971(1971-1981)
1. Service Transport	-	-	-	-	-	-
2.Transport Commerce	-	-	1	-	-	1
3.Commerce Industry	6	5	14	1	-	26
4.Primary Activity Service	-	-	-	-	3	10
5.Primary Activity Commerce	-	-	-	-	-	-
6.Total	6(6,67)	5(5,13)	-	15(43,38)-	1(1,24)	9(29,94)
					9(100,00)	9(100,00)
						100

Source : Prepared from Town Directory, Part VI-A, Census of India, U.P., 1971.

Note : Figures in parenthesis represent respective percentage share to total towns.

bi-functional towns as there were 10 towns having service industry economic activity sharing 75% of the total bi-functional towns in 1961-1971, their share reduced to 1 (3.00%) in 1971-1981. A large number of rapidly growing bi-functional towns emerged having primary activity as one of the two major economic activities sharing 33.00% of the total bi-functional towns in 1971-1981. Moreover, bi-functional Service-Commerce towns increased from 2 to 9 sharing 15.38% and 50.00% of the total bi-functional towns during 1961-1971 and 1971-1981 respectively. A considerably large number of multi-functional towns emerged in 1971-1981, registering growth rate higher than the national average. There were 6 (66.67%) towns having a combination of commerce, industry and primary activities and 3 (33.33%) towns having a combination of primary activity with service and industry. The number of multi-functional towns rapidly growing were 14 (14.16%) having a combination of commerce and industry with service during 1971-1981. There were 9 (29.03%) multi-functional towns having primary activity with service and commerce while 5 (16.12%) towns reported growth rate higher than the national average having commerce, industry and primary activity as major economic activities during 1971-1981. The analysis of the table points that :

- (i) A large number of mono-functional towns, either having service or primary activity which are not directly productive economic activities, were reporting above national average growth rate.
- (ii) A sharp decline in bi-functional towns having industry and

service has taken place from 1961-1971 to 1971-1981 whereas a large number of towns having commerce and service emerged during 1971-1981.

(iii) A significant increase in number of multi-functional towns having economic activities; commerce, industry and service, has taken place during 1971-1981.

The overall analysis of the functional characteristics of towns reveals existence of overwhelming numerical predominance of service towns or those having primary activity as an accentuated function. It points out the weakness of urban growth in India as having weak 'pull' factor which is related with the expansion of industries (Mitra, 1964:54). Moreover, increasing ratio of towns having primary activities limits the role of urban centres for economic and industrial expansion. The combination of primary activities with service, transport, or commerce in towns suggests that these towns are primarily processing, sale and transport centres for agricultural produce and mainly cater to the agricultural produce (Mills and Becker, 1988 : 86; Mitra 1964:55). The declining ratio of towns having industrial economic activity as mono-functional, bi-functional, or multi-functional activity is an evidence of dysfunctional urban structure which is prohibiting dynamic growth in cities.

### 3.3 Urbanisation-Industrialisation Dynamics in Uttar Pradesh

The rural-urban relationship as viewed by one of the proponents of the 'balanced growth approach' is based on the two-sector economy (Lewis, 1954). The first is rural sector which consists of a low productivity, and labour surplus with subsistence wages. The second is modern industrial sector having high productivity, higher profit margins and better wages. Lewis believes that the impetus for labour transfer from rural to urban sector in developing countries depends on expansion of urban employment opportunities through growth of modern sector. The industrial growth, therefore, with the transfer of surplus labour from the rural sector will convert any developing economy from rural-agricultural to urban-industrial economy.

Hirschman (1958), an eminent scholar of the unbalanced growth approach has viewed that rural-agricultural development and urban-industrial development are conflicting source of economic and social change. Rapid industrialisation was expected to produce 'trickle down' and 'spread effect' from cities to the surrounding areas, thereby incorporating rural population into national economy for stimulating agricultural production.

Many assumptions of the two sector model about migration and industrialisation are seriously questioned. Similarly the interactive and interrelated nature of urban and industrial development has also been the issue of debate since

context of India. Hauser (1957: 9), one of the proponents of this theory argued that, "It is true to say that Asia is over-urbanised in relation to its degree of economic development. At comparable levels of urbanisation, the developed countries of today had a correspondingly greater proportion of their labour force engaged in non-agricultural occupations". The basic defect of such comparisons lies in the fact that developed and developing countries have different historical experiences, thus, different "structures", therefore, such comparisons are unrealistic (Banerjee 1969;1173). Our concern is to analyse <sup>6</sup> urbanisation-industrialisation dynamics for the class I towns/cities and in different regions in U.P.

### 3.3.1 Urban-industrial dynamics in cities

In Table 3.3.1 and Table 3.3.2 Class I towns of 1981 have been arranged in descending order according to their value of index of industrialisation and decadal urban population growth rates, respectively. The KAVAL towns of U.P. attained very low positions in 1981, as compared to their position in 1961, in terms of their urban population growth rates. The highest growth rate is attained by Ghaziabad which maintained it over all the three decades. The cities of the Western region improved their position by having the top two industrialised cities in 1961, 5 cities in 1971 and 8 cities in 1981. Kanpur stood at third position in 1961, was sixth in 1971, and subsequently declined to eighteenth position in 1981 in the hierarchy of towns on the basis of their urban growth rates. The same declining rate of the

Table 3.3.4

Industrial Performance of the Selected Cities, 1961-1981.

DISTRICT	RANK INDEX OF DISTRICT INDUSTRY-1961		RANK INDEX OF DISTRICT INDUSTRY-1971		RANK INDEX OF DISTRICT INDUSTRY-1981		INDEX OF INDUSTRY-ALISATION
	ALISATION	ALISATION	ALISATION	ALISATION	ALISATION	ALISATION	
AGRA	8	1.18	AGRA	7	1.27	AGRA	10
ALLIGARH	7	1.19	ALLIGARH	6	1.29	ALLIGARH	8
ALLAHABAD	19	0.81	ALLAHABAD	22	0.8	ALLAHABAD	23
AMROHA	5	1.23	AMROHA	5	1.29	AMROHA	5
BAREILLY	14	1.06	BAREILLY	15	1.01	BAREILLY	12
DEHRADUN	27	0.57	DEHRADUN	27	0.59	DEHRADUN	26
ETAWAH	21	0.72	ETAWAH	17	0.91	ETAWAH	11
FAIZABAD	22	0.71	FAIZABAD	25	0.68	FAIZABAD	28
FAR.C. FATEH	11	1.16	FAR.C. FATEH	11	1.14	FAR.C. FATEH	13
FIROZABAD	11	2.31	FIROZABAD	11	2.24	FIROZABAD	11
GAZIABAD	13	1.09	GAZIABAD	3	1.35	GAZIABAD	15
GORAKHPUR	15	1.04	GORAKHPUR	24	0.69	GORAKHPUR	25
HAFUR	23	0.7	HAFUR	19	0.86	HAFUR	21
HARDWAR	28	0.49	HARDWAR	28	0.55	HARDWAR	14
JAUNPUR	18	0.84	JAUNPUR	18	0.88	JAUNPUR	16
JHANSI	20	0.75	JHANSI	25	0.59	JHANSI	27
KANPUR	3	1.44	KANPUR	4	1.34	KANPUR	7
LUCKNOW	17	0.9	LUCKNOW	20	0.81	LUCKNOW	24
MATHURA	24	0.65	MATHURA	21	0.8	MATHURA	19
MEERUT	16	0.92	MEERUT	16	0.95	MEERUT	17
MIRZAPUR	6	1.21	MIRZAPUR	12	1.09	MIRZAPUR	3
MURADABAD	4	1.4	MURADABAD	9	1.23	MURADABAD	2
MUZZAFARNAGAR	25	0.64	MUZZAFARNAGAR	23	0.76	MUZZAFARNAGAR	22
RAMPUR	10	1.17	RAMPUR	8	1.26	RAMPUR	6
SAHARANPUR	12	1.15	SAHARANPUR	10	1.21	SAHARANPUR	9
SAMBAL	9	1.17	SAMBAL	13	1.06	SAMBAL	18
SHAHJAHANPUR	26	0.61	SHAHJAHANPUR	14	1.04	SHAHJAHANPUR	20
VARANASI	2	1.46	VARANASI	2	1.42	VARANASI	4

Source: Prepared from General Population Tables, Census of India, U.P., 1961, 1971, 1981.

Table - 3.3.2

Selected Cities Arranged According to Their Population Growth Rate  
1951 - 1981.

DISTRICT	RANK 1951-1961	DISTRICT GROWTH RATE 1961-1971	RANK DECEDRAL GROWTH RATE 1961-1971	DISTRICT GROWTH RATE 1971-1981	RANK	DECEDRAL GROWTH RATE	RANK	DECEDRAL GROWTH RATE	RANK	DECEDRAL GROWTH RATE
					1951-1961	1961-1971	1971-1981	1951-1961	1961-1971	1971-1981
AGRA	7	35.41	15	24.76	AGRA	27	17.76			
ALIGARH	11	30.65	4	36.37	ALIGARH	19	27.17			
ALLAHABAD	12	29.62	25	19.11	ALLAHABAD	21	26.71			
AMROHA	19	16.68	21	19.92	AMROHA	14	36.15			
BAREILLY	10	31.11	22	19.53	BAREILLY	10	37.82			
DEHRADUN	25	11.46	8	30.87	DEHRADUN	17	29.86			
ETAWAH	20	16.16	18	23.27	ETAWAH	14	30.6			
FAIZABAD	26	7.03	16	24.36	FAIZABAD	15	30.38			
FAR. C. FATEH	18	17.75	26	17.17	FAR. C. FATEH	5	45.08			
FIROZABAD	2	50.69	5	35.75	FIROZABAD	3	51.15			
GAZIABAD	1	61.02	1	81.29	GAZIABAD	1	124.83			
GORAKHPUR	6	36.11	12	28.1	GORAKHPUR	12	33.17			
HAPUR	24	12.16	11	28.99	HAPUR	7	44.3			
HARDWAR	27	4.57	2	52.39	HARDWAR	2	59.73			
JAUNPUR	17	18.15	9	30.53	JAUNPUR	16	30.23			
JHANSI	8	33.25	23	19.35	JHANSI	9	40.28			
KANPUR	3	37.36	6	31.32	KANPUR	18	28.53			
LUCKNOW	9	31.93	17	24.14	LUCKNOW	25	23.79			
MATHURA	15	18.42	27	11.89	MATHURA	28	13.81			
MEERUT	16	18.41	10	29.68	MEERUT	6	44.34			
MIRzapur	21	15.68	28	5.94	MIRzapur	26	20.62			
MURADABAD	14	18.52	3	42.13	MURADABAD	22	26.63			
MUZZAFARNAGAR	4	36.46	7	31	MUZZAFARNAGAR	4	49.69			
RAMPUR	28	0.84	24	19.21	RAMPUR	20	26.75			
SAHARANPUR	13	24.78	20	21.7	SAHARANPUR	13	34.04			
SAMBAL	22	12.23	14	25.21	SAMBAL	24	25.38			
SHAHJAHANPUR	23	12.17	19	22.4	SHAHJAHANPUR	8	42.36			
VARANASI	5	36.12	13	25.54	VARANASI	23	25.5			

Source : Prepared from Town Directory, Part X-A Census of India, U.P., 1961.

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city of Lucknow is obvious from Table 3.3.1 . Hardwar, a religious centre, showed a significant jump from its position in 1961 to second position from the top in 1971. It maintained its position in the hierarchy of urban growth rates even in 1981.

Tables 3.3.2 assesses the industrial performance of the same 28 Class I cities of 1981 Census in comparison with the performance of the state as a whole. The value of index of industrialisation greater than one signifies better performance of the city than the average performance of the state and vice-versa. The KAVAL towns show a steady declining trend in terms of their level of industrialisation which is highest for Lucknow and Kanpur. Hardwar and Mirzapur registered a sharp increase whereas Mathura and Etawah improved their positions steadily. The highly urbanising city of Ghaziabad improved its position from thirteenth in 1961 to third in 1971 but occupied fourteenth position in 1981. Moreover, there were 15 towns in 1961 and 1971 and 18 towns in 1981 out of 28 towns which registered better performance than the state's average performance.

The rank correlation coefficients between urbanisation and industrialisation calculated for these towns were .41 for 1961, .10 for 1971 and - .13 for 1981 which are not statistically significant, therefore, revealing a weak relationship between the two.

From the analysis of Table 3.3.1 and 3.3.2 it may be said that the degree of relationship between urbanisation and

industrialisation in the state is very weak and becoming weaker over the decades. The cities which are urbanising rapidly are not industrially dynamic, therefore sustenance of such high urban growth rate in these towns is doubtful as well as dangerous from the point of view of these centres emerging as foci for growth (Raza et. al. 1981:79-81). Moreover, highly urbanised and industrialised centres of colonial period, such as Kanpur, registered a declining trend in terms of both industrialisation and urbanisation. Kanpur is a dying city (Dayal and Bajpai, 1988), which was a blood-sucker of its countryside during the British period.

### 3.3.2 Regional dynamics of industrialisation-urbanisation

Table 3.3.3 depicts degree of association between industrialisation and urbanisation in different regions in U.P. for 1961, 1971 and 1981. The value of correlation for U.P. is .54 in 1961, .52 in 1971 and .50 in 1981 which are positive and statistically significant at all points of time. Western region exhibits positive and strong association between the two, as the value of correlation was 0.72, 0.60 and 0.75 in 1961, 1971 and 1981 respectively. It is the only region which showed improvement in 1981 over 1961. The degree of association between industrialisation and urbanisation is high in the Eastern region but it declined from 0.83 in 1961 to 0.66 in 1971 and 0.62 in 1981. Most striking results of correlations have been observed in the Central region as the degree of association between industrialisation and urbanisation improved from 0.48 in 1961 to 0.56 in 1971 but became negative in 1981, although the values were

Table 3.3.3

The Rank Order Correlation Coefficients Between  
Industrialisation and Urbanisation, 1961-1981.

REGION \ YEAR	1961	1971	1981
WESTERN	0.72 (4.1178)*	0.60 (2.9805)*	0.73 (4.4754)*
CENTRAL	0.43 (1.4606)	0.57 (1.8192)	-0.10 (0.3650)
EASTERN	0.83 (5.2635)*	0.66 (3.1734)*	0.62 (2.8327)*
HILL	0.71 (2.4993)**	0.71 (2.4993)**	0.55 (1.6030)
BUNDELKHAND	0.80 (3.1426)	0.60 (1.3258)	0.50 (1.00)
TOTAL	0.54 (4.6532)**	0.52 (4.4248)**	0.50 (4.2949)**

Note: Figures in parenthesis are t values of the coefficients.

\* Values significant at 1% level.

\*\* Values significant at 5% level.

Source: Calculated from Census Reports, Census of India,  
U.P., 1961, 1971, 1981.

statistically not significant at all the three points of time. The Hill region had a high association between the two as the value of coefficient was 0.71 equivalent to the Western region which declined to 0.55 in 1981- much below the value obtained in the Western region in 1981. Bundelkhand also has a rapidly declining tendency as the value of the coefficient went down from 0.80 in 1961 to 0.50 in 1981. But all the values were not statistically significant.

From the analysis of the table it may be inferred that in the developed Western region which is also agriculturally advanced, a significantly high and increasing association between industrialisation and urbanisation is indicative of the fact that agricultural development is propelling 'industrialisation led urbanisation' process of development in the region (Sinha, 1988).

In the backward and underdeveloped Eastern region of the state, the relationship between urbanisation and industrialisation deteriorated remarkably over the three decades. It signifies that urbanisation - industrialisation dynamic growth is supported by weak agricultural base in the Eastern region. Therefore, it registered a declining trend in the association between the two. The weakening relationship between urbanisation and industrialisation follows the same logic for the Central region and the Bundelkhand, though the Bundelkhand reported no statistically significant values of correlation coefficients. Moreover, emergence of a large number of new towns having predominantly agro-based economic activities, also influenced the

declining association of urbanisation and industrialisation in all regions in general.

The Central region is an interesting case in this context as the value of the correlation coefficient drastically declined from 1961 to 1971, which became even negative in 1981. It points out a decreasing affinity of industries with larger urban centers such as Kanpur and Lucknow which were most important urban centres during the colonial days. It juxtaposes a paradoxical situation before us that decentralisation of industries away from the big urban centres in Central region is taking place whereas degree of urbanisation in large towns is becoming more intense in this region. Streeten (1972) and Myrdal (1970), examining such phenomenon, have strongly viewed that "industrialisation simply can not hold in countries where the vast majority of people live in poverty, and where cities do not have strong or diversified enough economies to absorb the growing number of people migrating to them in search of jobs" (Rondinelli, 1986; 235).

### 3.4 The Occupational Patterns in Urban U.P.

Change in occupational structure has long been considered as one of the most important indices to measure the extent and nature of industrialisation and urbanisation. The most distinguishing characteristics of less developed countries is the very high proportion of the economically active population engaged in primary industries namely agriculture, mining ,and fishing, a very low proportion in commerce, transportation and service. In early fifties this relationship of occupational transformation with economic development was analysed by Collin Clark (1951). It maintains that the development of an economy from a primitive agricultural society to an urban - industrial society, can be achieved through a gradual shift in its occupational structure from primary to secondary and finally to tertiary sector. It is assumed to happen with a positive correlation between employment in the tertiary sector and per capita real income. V.K.R.V. Rao (1979; 2058) challenged the existence of such a pattern in the context of India, concluding that India indicates :

"...structural regression in occupational terms which is directly at variance with the structural progress shown by the changes in the share of NDP of three sectors- primary, secondary and tertiary. And it is this which constitutes both the problems and the paradox of Indian economic development and has led to the controversy about the linkage between growth and employment and the current disillusion about the effectiveness of industrialisation of the type we have had for increasing employment and changing occupational composition of the workforce by the three sectors, primary, secondary and tertiary".

This view is supported by many other scholars (Krishnamurty 1984; Sinha 1982). However, most of them have considered the secondary sector to be a better indicator of economic (and urban) development in India than the tertiary sector (Sharma, 1968; 487). As urbanisation affects the process of occupational diversification and vice-versa therefore, dynamics of urban-occupational diversification has been considered for in depth analysis in this chapter.

#### 3.4.1 Work participation rates in Class I cities

Tables 3.4.1 shows male work participation rate in twenty eight class I cities of U.P. A remarkably high declining rate in male work participation rate since 1901 to 1981 is observed. This decline in all towns ranges betteen 10.00% to 15.00% over the same period. In many cities, an increasing trend till 1951 was observed which declined afterwards and, in 1981, in no city work participation rate was equivalent to that of 1911. The male work participation rate in Kanpur declined from 59.60% in 1951 to 47.62% in 1961. The work participation rates in Lucknow, Varanasi, Aligarh, Gorakhpur waned from 55.02%, 55.26%, 52.97% and 52.48% in 1951 to 47.67%, 46.02%, 44.95% and 41.77% in 1981 respectively. Most of the towns maintained their share in work participation rate from 1971 to 1981, though Ghaziabad improved its share. Hardwar, a highly urbanising and industrialising city, observed decline in work participation rate from 1961 to 1981. This discernible feature reflects that more capital-intensive and labour displacing industrialisation is taking place in Hardwar

Table 3.4.1

Work Participation Rates in Selected Cities, 1901-1981.

CITY	YEAR	WORK PARTI-CIPATION RATE
1 DEHRADUN		
	1951	53.71
	1961	51.26
	1971	49.25
	1981	50.66
2 RAMPUR		
	1911	53.67
	1921	45.84
	1931	56.16
	1951	51.40
	1961	51.24
	1971	50.26
	1981	51.20
3 MATHURA		
	1901	57.89
	1911	61.27
	1921	54.17
	1931	56.61
	1951	53.80
	1961	50.61
	1971	46.58
	1981	49.06
4 SHAHJAHANPUR		
	1901	55.08
	1911	58.03
	1921	57.10
	1931	48.36
	1951	54.86
	1961	52.21
	1971	47.79
	1981	47.62
5 MIRZAPURFUR		
	1901	60.29
	1911	58.75
	1921	62.32
	1931	60.27
	1951	57.55
	1961	54.10
	1971	48.77
	1981	48.26

Continued...

Table 3.4.1

CITY	YEAR	WORK PARTIFICATION RATE
6 KANPUR		
	1901	65.73
	1911	68.83
	1921	68.94
	1931	52.69
	1951	59.60
	1961	54.29
	1971	50.30
	1981	47.62
7 LUCKNOW		
	1901	63.15
	1911	66.31
	1921	65.66
	1931	58.33
	1951	55.02
	1961	52.23
	1971	47.94
	1981	47.67
8 AGRA		
	1901	54.33
	1911	59.20
	1921	60.46
	1931	55.20
	1951	47.80
	1961	47.70
	1971	45.50
	1981	47.77
9 VARANSI		
	1901	62.06
	1911	60.95
	1921	59.93
	1931	54.08
	1951	55.26
	1961	51.94
	1971	47.23
	1981	46.02
10 ALLAHABAD		
	1901	59.14
	1911	60.74
	1921	61.01
	1931	46.20
	1951	51.72
	1961	49.85
	1971	46.46
	1981	43.78

Continued...

Table 3.4.1

CITY	YEAR	WORK PARTICIPATION RATE
11 MEERUT		
	1901	59.98
	1911	60.27
	1921	55.76
	1931	54.85
	1951	54.86
	1961	51.58
	1971	49.69
	1981	49.76
12 BARELLIE		
	1901	55.62
	1911	56.64
	1921	57.93
	1931	54.38
	1951	51.97
	1961	50.27
	1971	47.45
	1981	47.44
13 MORADABAD		
	1901	51.59
	1911	57.81
	1921	57.95
	1931	54.29
	1951	51.71
	1961	50.18
	1971	47.73
	1981	49.91
14 SAHARANPUR		
	1901	57.63
	1911	64.20
	1921	63.94
	1931	60.45
	1951	50.14
	1961	51.52
	1971	48.27
	1981	48.58
15 ALIGARH		
	1901	53.54
	1911	56.26
	1921	57.99
	1931	57.21
	1951	52.97
	1961	47.37
	1971	45.44
	1981	44.95

Continued...

Table 3.4.1

CITY	YEAR	WORK PARTICIPATION RATE
16 GORAKHPUR		
	1901	62.91
	1911	61.32
	1921	61.31
	1931	56.05
	1951	51.76
	1961	50.53
	1971	44.95
	1981	41.77
17 JHANSI		
	1901	61.47
	1911	66.84
	1921	65.81
	1931	59.13
	1951	52.48
	1961	49.47
	1971	42.38
	1981	42.34
18 HARDWAR		
	1961	53.52
	1971	49.82
	1981	47.25
19 MUZAFFARNAGAR		
	1961	47.31
	1971	45.01
	1981	46.21
20 GHAZIABAD		
	1961	48.83
	1971	49.21
	1981	51.15
21 HAFUR		
	1961	47.99
	1971	45.82
	1981	46.10
22 SAMBAL		
	1961	52.21
	1971	49.72
	1981	48.15

Continued...

Table 3.4.1

CITY	YEAR	WORK PARTICIPATION RATE
23 AMROHA		
	1961	48.80
	1971	46.05
	1981	46.40
24 FIROZABAD		
	1961	53.85
	1971	48.09
	1981	48.48
25 FARRUKHABAD C. FATEHGARH		
	1961	52.36
	1971	50.14
	1981	51.53
26 ETAWAH		
	1961	50.62
	1971	46.05
	1981	44.66
27 FAIZABAD		
	1961	51.10
	1971	46.84
	1981	47.76
28 JAUNPUR		
	1961	49.31
	1971	46.16
	1981	43.27

SOURCE: Calculated from Census Reports, Census of India,  
U.P. 1961, 1971, 1981.

with no forward and backward linkages with the local industries. A large proportion of rural migrants as non working population is increasing the rate of urban growth in the cities (Dholakia,<sup>9</sup> 1985). Therefore, a decline in work participation rate in cities implies that an average urban worker is compelled to support a larger number of dependents in urban areas than before. These dependents are contributing nothing to the income of these cities but sharing urban basic services equally.

#### 3.4.2 Region-wise work participation rates

Table 3.4.2 shows work participation rate of male workers in different regions in urban and rural areas of U.P. The work participation rate in urban areas of U.P. is lower than that of rural areas at all points of time, quite similar to the trend observed in India. The work participation rate in rural areas declined whereas it improved in urban areas of the Western region. The urban work participation rate for the Western region was 43.64% in 1971 and 48.29% in 1981. Over the decades, the work participation rate in rural areas improved while it declined steadily in urban areas, of the Central region. In the Central region urban work participation rate was 53.99% in 1961, 49.17% in 1971 and 47.61% in 1981. The Eastern region registered a declining trend of work participation rate in rural as well as urban areas. In the urban areas of the Eastern region, it was 51.59% in 1961 which decreased to 45.34% in 1981. In the Hill region, work participation rate declined in both urban and rural areas though the rate of decline was such that in 1981 urban and rural work participation rates were almost the same, i.e., 50.98%

Table 3.4.2

Region-wise Work Participation Rate of  
Male Workers, 1961, 1971 & 1981.

(In percentage)

Regions\Years		1961	1971	1981
Western	-Urban	50.75	43.64	48.29
	-Rural	58.99	52.31	50.86
Central	-Urban	53.99	49.17	47.61
	-Rural	61.56	55.74	56.71
Eastern	-Urban	51.59	47.37	45.34
	-Rural	53.19	53.40	50.80
Hill	-Urban	55.32	55.62	50.98
	-Rural	59.42	52.44	50.50
Bundelkhand	-Urban	50.86	44.47	44.81
	-Rural	60.18	53.11	52.23
U.P.	-Urban	51.74	46.02	47.30
	-Rural	59.20	52.98	52.23
India	-Urban	52.40	48.90	49.70
	-Rural	53.18	53.62	53.20

Source : (i) Singh (1987:22)

(ii) Census of India, U.P.; 1961, 1971, 1981.

in urban area and 50.50% in rural areas. The most backward region Bundelkhand registered a decline in work participation rates in both rural and urban areas. The work participation rate in urban areas was 50.86% in 1961 and 44.81% in 1981 whereas, in rural areas it was 60.18% in 1961 and 52.23% in 1981. The difference in work participation rate between urban and rural areas was maximum in case of the Bundelkhand followed by Central, Eastern, Western and Hill regions of the state. The highest work participation rate in urban areas was registered in the Western region followed by Central, Eastern, and Bundelkhand regions in that order.

From the analysis it appears that employment opportunities are getting generated in urban areas of the Western U.P. Generation of employment opportunities in urban areas with a decline in work participation rate in rural areas is a step towards transformation from rural-agricultural to urban-industrial economy in the Western U.P. The Central region depicts a reverse trend of what is observed in the Western region, whereas the Eastern, Hill, and Bundelkhand regions are unable to generate employment opportunities either in rural areas or urban areas.

#### 3.4.3 Town-wise distribution of workers

Table 3.4.3 describes the composition of workers in different classes of towns from 1961 to 1981. From the table it can be seen that percentage of agricultural workers and cultivators to the total workers increases remarkably as we move from higher order towns to lower order towns grouped in different

Table 3, 4, 5

## Distribution of Workers by Size Class of Towns, 1961-1981.

(IN PERCENTAGE)

Industrial Category of Male workers	Year	Size Class of Towns					
		I	II	III	IV	V	VI
Agricultural Labour I	1961	2.03	4.98	7.24	11.17	15.29	7.55
	1971	2.29	0.26	8.21	12.15	10.56	6.64
	1981	2.35	5.57	9.98	18.79	24.39	26.25
Cultivator II	1961	0.67	2.44	1.66	1.90	2.59	0.79
	1971	1.91	4.02	6.53	8.90	7.59	7.59
	1981	2.06	3.44	8.57	13.51	15.34	10.72
Household Industrial Worker V (A)	1961	8.18	7.37	11.44	11.27	14.82	3.37
	1971	7.16	9.53	7.18	8.18	8.28	2.09
	1981	7.74	7.65	7.65	9.00	10.12	7.32
Other workers III+IV+V(B)+VI to X	1961	89.12	85.21	79.66	75.66	67.30	88.29
	1971	89.64	86.17	78.03	70.77	73.47	83.63
	1981	87.85	83.34	73.80	58.70	50.15	55.71
Total		100.00	100.00	100.00	100.00	100.00	100.00

Source : (i) Census of India, U.P.; 1961, 1971, 1981.

classes. Moreover, there has been an increase in the concentration of agricultural workers and cultivators over the decades. The percentage share of workers in agricultural sector, in 1961 was 2.70% in Class I towns, 7.42% in Class II towns, 8.90% in Class III towns, 13.07% in Class IV towns, 17.83% in Class V towns and 8.34% in Class VI towns. In 1981, the share of workers in agricultural activites increased to 4.41% in Class I towns, 9.01% in Class II towns, 18.55% in Class III towns, 32.30% in Class IV towns 39.73% in Class V and 36.97% in Class VI towns. Such a tremendous rise in employment in agricultural activities in towns is a matter of serious concern. This phenomenon shows that a large non-productive superstrucutre is developing in urban areas of U.P. which weakens the productive economic base of towns (Kumar 1988; 508).

The percentage share of household workers also declined in all classes of towns in 1971 and 1981 as compared to its share in 1961. Yet, (from 1971 to 1981) there is a noticeable improvement in household workers in Class IV, Class V and Class VI towns from 8.18% to 9.00%, 8.28% to 10.12% and 2.09% to 7.32% respectively. As a result the share of other workers sharply declined from 75.66% to 58.70% in Class IV towns, from 67.30% to 50.15% in Class V towns and from 88.29% to 55.71% in Class VI towns from 1961 to 1981. Such a drastic change in the occupational pattern in the lowest three categories of towns happened due to the inclusion of 55.00% new towns to total towns in 1981 which were concentrated in these classes of towns. Table 3.4.4 shows that in new towns, 43.72% of the total workers were

10  
100

Table 3.4.4

The Occupational Structure of New Towns, Old and All Towns in 1961,  
(in percentage)

Towns	Total Workers	Agricultural Workers	Cultivators	Household Workers	Ind-Other Workers	Industrial Workers
New Towns	100.00	16.71		27.01	9.06	47.22
Old Towns	100.00		3.94		5.24	7.23
All Towns	100.00	6.09		8.94	7.54	77.43

Source : Calculated from Town Directory, Part X-A, Census of India, U.P., 1971.

in agricultural activities and 47.22% were engaged in other activities. The concentration of workers in agricultural pursuits was only 9.18% in old towns. Inclusion of so many new towns having high dominance of agricultural activities has distorted the occupational pattern of urban areas particularly in 1981.

Table 3.4.5 presents occupational pattern in Class I towns, excluding those for Class I towns and whole of urban areas in U.P. The share of employment in manufacturing sector is increasing in case of Class I towns. The trade and commerce is another major economic activity in non- Class I towns employing a large share of workers at all points of time. The share of transport workers to total workers in case of non- Class I towns as compared to Class I towns is considerably low which has also declined relatively faster from 1961 to 1981.

From the analysis of the above three tables it is clear that no transformation of occupational structure in towns of U.P. has taken place. Shift of workers towards agricultural activities particularly in 1981 is due to the inclusion of a large number of new towns having weak non-agricultural economic base. However, continuing heavy dominance of tertiary sector over manufacturing sector, from 1961 to 1981, is indicative of the structural rigidities in the economic system of towns to absorb more and more labour in productive manufacturing sector.

#### 3.4.4 Region-wise composition of workers

Table 3.4.6 contains the sectoral composition of

Table 1.4.5

Occupational Structure of Class I Cities in 1961 Census Other than Class I Cities  
and All Urban Areas in 1961, 1971 and 1981.  
(IN PERCENTAGE)

CITY Groups	Year	Agricultural Labour and Process-		Manufacturing Construction		Trade and Commerce		Other Services		Total Occupation
		Cultivators	Plantation	Manufacturing	Construction	Trade and Commerce	Other Services			
Class I Cities	1961	2.24	0.70	0.93	25.77	3.16	20.35	33.17	100.00	
in 1971	1971	2.54	1.95	0.83	23.91	2.18	20.45	29.54	100.00	
Census	1981	2.36	1.39	1.73	26.14	6.20	27.67	22.14	100.00	
Other than Class I Cities	1961	9.61	1.77	1.34	21.73	3.75	20.85	34.35	100.00	
	1971	10.30	1.17	1.03	22.16	2.83	21.49	32.65	100.00	
	1981	15.86	3.87	1.19	26.19	6.63	21.27	4.33	100.00	
All Urban Areas	1961	5.69	1.10	1.06	25.75	3.38	19.80	23.65	100.00	
	1971	5.56	4.06	0.90	26.36	2.46	20.35	22.04	100.00	
	1981	3.94	6.10	1.21	27.13	3.47	16.35	6.19	100.00	

Source : Calculated from Census of India, 5, 2, 1961, 1971, 1981.

Table 3.4.6

Region Wise Sectoral Distribution of Urban Workers, 1961-1981.

Regions	Years	Primary	Secondary	Tertiary	Total
		Sector	Sector	Sector	
Western	1961	8.11	29.62	62.27	100.00
	1971	11.63	30.35	58.02	100.00
	1981	18.24	31.68	50.07	100.00
Eastern	1961	5.78	32.19	62.03	100.00
	1971	10.05	29.31	60.44	100.00
	1981	13.93	32.03	54.04	100.00
Central	1961	6.38	33.17	60.45	100.00
	1971	7.89	29.56	62.55	100.00
	1981	13.60	30.06	56.34	100.00
Hill	1961	5.78	32.19	62.03	100.00
	1971	6.51	17.14	76.36	100.00
	1981	9.38	25.64	64.98	100.00
Bundelkhand	1961	5.31	17.44	77.25	100.00
	1971	17.96	18.76	63.28	100.00
	1981	25.29	21.60	53.11	100.00
U.P.	1961	7.19	30.16	62.66	100.00
	1971	10.45	28.76	60.79	100.00
	1981	16.25	30.60	53.16	100.00

Source : (i) Calculated From Census of India, U.P.; 1961,1971,1981.

workers in different regions from 1961 to 1981. There was a tremendous rise in workers in primary sector as there were 7.19% workers in this sector in 1961 which rose to 16.25% in 1981 in U.P. (Urban). The employment in secondary sector has remained almost stable sharing 30.16%, 28.76% and 30.60% in 1961, 1971 and 1981 respectively. As a consequence, the employment in tertiary sector declined from 62.66% in 1961 to 60.79% in 1971 and to 53.16% in 1981. The share of primary sector in all regions almost doubled in urban areas except in the Bundelkhand region where the rise was remarkably high (almost five times) in 1981 from that of 1961. The Western and the Bundelkhand regions observed steady rise in the percentage share of workers in secondary sector. The Western region shared 29.62% and 31.68% and Bundelkhand shared 17.44% and 21.60% in 1961 and 1981 respectively. The share of workers in secondary sector has constantly declined in the Central region reaching from 33.17% in 1961 to 30.06% in 1981. In the Eastern and the Hill regions, the percentage share of secondary workers dipped from 32.19% in 1961 to 29.51% in 1971 and from 32.19% in 1961 to 17.14% in 1971 respectively. However it picked up in both the regions sharing 32.03% in the Eastern region and 25.64% in the Hill region in 1981. As a result of rise in primary and secondary sector workers the percentage share of workers in tertiary sector declined in all regions from 1961 to 1981 except in the Hill region where the share increased from 62.03% to 64.98% over the same period.

The analysis of the table shows that there has been no positive change in the diversification of occupational structure

in urban areas of U.P. during 1961-1981. The increasing share of primary sector with a constant share of manufacturing sector in U.P. (Urban) reflects that the economy of Uttar Pradesh is still underdeveloped. Modern industrialisation is unable to act as a catalyst in the transformation of the occupational structure in favour of non-primary activities, therefore, perpetuating underdevelopment in the state. The reason for the predominance of primary activities in the Indian economy is given by De Hann (1980:12) as follows :

"Though the share of the primary sector continually decreased at constant prices, it remained more or less stable in current prices. This means that lagging behind of the primary sector in real terms was fully compensated by the movement of the terms of trade in its favour ... that the change of the terms of trade in favour of agriculture could have been one of the factors responsible for the limited release of labour from agriculture".

However, increasing trend of employment in primary sector may also be on the one hand due to the inclusion of large number of places by the Census as urban areas which do not fulfill the economic condition to be called as urban and , bleak employment possibilities in non-agricultural sector on the other.

To understand the occupational composition in urban areas of different regions, the distribution of workers in nine industrial categories has been presented in Table 3.4.7. The constancy in manufacturing sector is due to a decrease in household industries in urban areas proportionate to the increase in non-household industries. The household industries in U.P. employed 8.08% workers in 1961 which declined to 7.54% in 1981

Table 3.4.7

Region-wise Distribution of Urban Workers in Different Industrial Categories, 1961-1981  
(In Percentages)

Regions	Years	Agriculture		Household Manufacturing		Other than Household Manufacturing		Trade and Transport Contractors		Services		Total
		Cultivators	Agricultural Workers	Industry	Manufacturing	Industry	Manufacturing	Trade and Transport Contractors	Services			
Western	1961	5.54	1.48	1.09	6.94	19.40	1.26	21.62	3.45	24.69	194.99	
	1971	6.13	4.43	1.07	6.04	21.33	3.19	20.76	11.31	20.51	199.97	
	1981	9.70	7.34	1.10	6.46	21.35	3.31	19.30	7.73	21.02	199.99	
Central	1961	4.94	0.73	0.73	4.41	20.73	3.01	13.35	9.00	24.79	198.99	
	1971	4.36	2.72	0.61	4.86	21.19	1.69	20.73	9.95	21.87	199.96	
	1981	7.98	4.52	1.05	5.46	21.41	2.35	19.14	8.19	20.00	199.96	
Eastern	1961	3.78	0.94	1.16	14.93	13.52	3.74	19.31	16.73	21.37	199.99	
	1971	4.94	4.21	0.89	13.02	14.01	1.81	24.24	9.95	25.81	199.99	
	1981	7.97	4.98	0.97	13.67	13.96	2.47	21.73	8.09	24.24	199.99	
Hill	1961	2.39	0.53	2.57	3.77	16.14	3.51	15.37	6.01	21.66	191.99	
	1971	2.92	2.59	1.09	2.61	11.11	3.43	13.22	2.33	20.54	199.99	
	1981	3.07	3.79	2.36	2.44	18.38	7.15	20.45	7.21	21.59	199.99	
Bundelkhand	1961	8.42	1.64	1.03	9.10	9.14	4.21	16.19	12.17	21.62	199.99	
	1971	10.89	6.13	6.39	6.53	10.02	2.16	19.55	13.93	20.73	199.99	
	1981	15.35	8.51	6.83	6.39	11.13	3.50	16.93	11.37	21.24	199.99	
Total	1961	5.06	1.10	1.06	6.08	13.71	3.38	19.39	2.82	21.61	199.99	
	1971	5.38	3.99	0.59	7.13	19.17	2.45	20.31	10.46	20.68	199.99	
	1981	8.91	6.16	1.21	7.54	19.53	3.47	19.55	9.19	20.30	199.99	

Source : Calculated from Census of India, V.C., 1961, 1971, 1981.

whereas non-household industry registered an increase from 18.71% to 19.59% over the same period. In the Western region there was a marginal decrease in the employment in household sector whereas employment in other than household industrial sector increased by about 2.66% from 1961 to 1981. In the Central region the reverse trend is observed as share of workers in household industries increased from 4.41% in 1961 to 5.20% in 1981 while employment in other than household sector decreased from 25.73% to 22.21% over the same period. Rest of the regions such as Eastern, Hill and Bundelkhand observed a decline in household industrial employment and increase in other than household industries.

The analysis of the table reveals a declining trend of workers in household industries in 1961 to 1971 whereas a marginal increase over the period from 1971 to 1981. The other than household industries registered a steady increase in all regions except in the Eastern. The Central region has a peculiar trend as employment in other than household industries decreased whereas employment in household industries increased in urban areas during the same period. Kundu (1983: 103) explains the existence of such a phenomenon due to the existence of strong market forces which are operating in favour of agglomerated industrial growth at such centers against the governmental programmes of dispersed industrialisation. Kanpur and Lucknow, two major cities in U.P. which fall in the Central region, also observed a significant increase in household manufacturing employment. The share of workers in household manufacturing to total manufacturing sector of the Eastern U.P. was 52.47% in

1961, 47.12% in 1971 and 46.22% in 1981. Such predominance of household industrial workers raises many questions about the nature of development process which is unable to transform traditional industrial urban centres of the Eastern U.P. into modern industrial centres. Such urban centers do not exhibit sufficient dynamism necessary for their sustained growth and diffusion of growth impulses in the countryside (Raza et. al, 1981).

#### 3.4.5 Regional variations in workers

In Table 3.4.8 are given the coefficients of variations of workers to explain the regional variations in different categories of workers. The decreasing nature of coefficients of variation, in all industrial categories, signifies the tendency towards homogeneity within the regions from 1961 to 1981, although in the Western region, in the category of cultivators and agricultural workers the values of coefficient of variation increased from 0.54 to 0.74 and 0.55 to 0.92 from 1971 to 1981 respectively. The highest disparities in household industrial workers have been observed in the Hill region followed by the Eastern region as the values of coefficient of variations are the highest in these regions. A significantly high rate of decline in the coefficient of variation is seen in the Western region in other than household industrial workers. The coefficient of variation of other than household workers in 1971 was 0.94 which declined to 0.48 in 1981. The Central, Eastern and the Hill regions are having values of the coefficient of variation greater than one and the tendency of decline in their

Table 3.4.8

Region-wise Coefficient of Variation in Different Industrial Categories, 1961-1981.

Regions	Years	Total	Culti-	Agricu-	Mining &	House-	Other than	Constru-	Trade &	Transpore	Other
			Tural	vators	Quarrying	Hold	Household	ction	Commerce	Industry	Services
<b>Labourers</b>											
Western	1961	0.66	0.49	0.68	0.79	0.65	1.00	0.66	0.61	0.83	0.60
	1971	0.70	0.54	0.55	0.82	0.79	0.94	0.69	0.67	0.79	0.74
	1981	0.65	0.74	0.92	0.58	0.59	0.48	0.41	0.58	0.60	0.98
Central	1961	1.39	0.76	1.18	1.17	0.97	1.83	1.33	1.35	1.53	1.33
	1971	1.40	0.61	0.58	1.31	1.21	1.81	1.10	1.42	1.52	1.42
	1981	1.15	0.37	0.36	1.14	0.86	1.65	0.86	1.23	1.43	1.27
Eastern	1961	1.07	0.58	0.96	0.85	1.62	1.22	1.14	1.02	1.35	1.03
	1971	1.02	0.55	0.53	1.04	1.60	1.15	0.88	0.96	1.43	1.10
	1981	0.85	0.35	0.43	0.76	1.34	1.07	0.85	0.87	1.14	0.92
Hill	1961	1.43	1.33	2.04	1.61	2.06	1.71	1.30	1.52	1.43	1.14
	1971	1.29	1.05	1.89	1.52	1.28	1.46	1.31	1.31	1.40	1.36
	1981	1.17	1.38	1.93	1.19	1.19	1.48	0.82	1.25	1.37	1.08
Bundel-	1961	0.70	0.30	0.53	0.69	0.62	0.99	0.89	0.53	1.16	0.68
Khand	1971	0.57	0.24	0.27	0.37	0.55	0.68	0.34	0.43	1.24	0.61
	1981	0.50	0.30	0.57	0.52	0.60	0.66	0.42	0.41	1.11	0.56
U.P.	1961	1.15	0.82	1.10	1.00	1.45	1.85	1.09	1.10	1.35	1.08
	1971	1.14	0.75	0.74	1.12	1.47	1.63	1.02	1.13	1.28	1.20
	1981	0.93	0.67	0.81	1.00	1.25	1.36	0.77	0.94	1.15	1.08

Source : Calculated from Census of India, U.P., 1961, 1971, 1981.

values is also rather slow. Although the value of coefficient of variation in the Bundelkhand region is relatively lower than that observed in the Eastern, Central, or Hill regions in household or other than household industrial workers, but the Bundelkhand is a relatively backward region having very low level of industrialisation.

The analysis is indicative of the fact that distribution of workers in different regions is tending towards homogeneity in the state over the last three decades. Trend of increasing variations in cultivators and agricultural workers in the Western region suggest that a large number of towns having predominantly rural economic base are emerging in this region, thus, increasing the value of coefficient of variation. Relatively higher values of coefficients of variation in household and other than household industries in the Hill and the Eastern region are supporting the existence of underdevelopment in these regions. High degree of disparity in manufacturing sector in the backward regions like Eastern and Hill may be considered as a hinderance for speedy industrialisation in the state.

#### 3.4.6 Regional correlation coefficients between the workers

In Table 3.4.9 correlation-coefficients between the workers in agricultural activities and manufacturing activities have been calculated to understand the nature of relationship between these two in urban areas of U.P. Moreover, correlation

Table 3.4.9

Region-wise Correlation Coefficients of Selected Economic Activities of Workers, 1961-1981.

Regions	Years	Cultivators			Agricultural & Household Labourers & Other than Household			Agricultural & Household Labourers & Other than Household			Household Industry		
		Industry	Household	Industry	Industry	Household	Industry	Industry	Other than Household	Industry	H.h. Industry	Industry	
Western	1961	0.64 (3.34)*	0.56 (2.70)*	0.33 (1.40)	0.35 (1.40)	0.63 (5.95)*	0.35 (1.40)	0.35 (1.40)	0.35 (1.40)	0.35 (1.40)	0.35 (1.40)	0.35 (1.40)	
	1971	0.54 (2.57)**	0.43 (2.19)*	0.34 (1.45)	0.34 (1.45)	0.90 (1.91)	0.43 (1.91)	0.43 (1.91)	0.43 (1.91)	0.43 (1.91)	0.43 (1.91)	0.43 (1.91)	
	1981	0.34 (1.49)*	0.28 (1.20)	0.08 (.33)	0.08 (.33)	0.14 (.33)	0.08 (.33)	0.08 (.33)	0.08 (.33)	0.08 (.33)	0.08 (.33)	0.08 (.33)	
Central	1961	0.72 (2.74)**	0.92 (6.21)*	0.60 (1.98)**	0.60 (1.98)**	0.96 (5.80)*	0.91 (5.80)*	0.91 (5.80)*	0.91 (5.80)*	0.91 (5.80)*	0.91 (5.80)*	0.91 (5.80)*	
	1971	0.67 (2.39)**	0.78 (3.29)*	0.64 (2.20)**	0.64 (2.20)**	0.95 (8.04)*	0.75 (3.00)*	0.75 (3.00)*	0.75 (3.00)*	0.75 (3.00)*	0.75 (3.00)*	0.75 (3.00)*	
	1981	0.11 (.20)	0.68 (2.45)**	0.30 (.83)	0.30 (.83)	0.84 (4.09)*	0.76 (3.09)*	0.76 (3.09)*	0.76 (3.09)*	0.76 (3.09)*	0.76 (3.09)*	0.76 (3.09)*	
Eastern	1961	0.50 (2.03)**	0.16 (.58)	0.54 (2.31)**	0.54 (2.31)**	0.67 (2.93)*	0.63 (2.93)*	0.67 (2.93)*	0.67 (2.93)*	0.67 (2.93)*	0.67 (2.93)*	0.67 (2.93)*	
	1971	0.50 (2.08)**	0.50 (2.08)*	0.59 (2.63)*	0.59 (2.63)*	0.79 (4.35)*	0.77 (4.35)*	0.79 (4.35)*	0.79 (4.35)*	0.79 (4.35)*	0.79 (4.35)*	0.79 (4.35)*	
	1981	0.28 (1.05)	0.23 (.81)	0.38 (1.48)	0.38 (1.48)	0.78 (4.22)*	0.52 (2.17)**	0.78 (4.22)*	0.78 (4.22)*	0.78 (4.22)*	0.78 (4.22)*	0.78 (4.22)*	

Tables 3, 4, 9

Regions	Years	Cultivators	Agricultural	Cultivators	Agricultural	Household	Other than	Labourers &	Industry &	Household	Other than	Industry	H.h. Industry
Hill	1961	0.79 (3.16)*	0.35 (.92)	0.67 (2.21)**	0.60 (3.27)*								0.36 (0.93)
	1971	0.89 (4.78)*	0.94 (6.75)*	0.66 (2.15)**	0.72 (2.54)**	0.72 (5.75)*	0.92 (5.75)*						
	1981	0.93 (6.19)*	0.97 (9.77)*	0.62 (1.94)**	0.68 (2.27)**	0.68 (3.27)*	0.80 (3.27)*						
Bundelkhand	1961	0.83 (2.10)	-0.05 (0.07)	0.86 (2.38)**	0.02 (2.38)**	0.02 (0.03)	0.93 (9.92)*						
	1971	0.85 (2.28)**	0.25 (.36)	0.71 (1.43)	-0.21 (-0.21)	-0.21 (-0.21)	0.92 (3.32)*						
	1981	0.60 (1.30)	-0.01 (.01)	0.59 1.13	-0.03 (0.05)	-0.03 (3.20)*	0.86 (3.20)*						
U.P.	1961	0.34 (2.60)*	0.29 (2.19)*	0.54 (4.63)*	0.54 (4.75)*	0.55 (3.15)*	0.40 (3.15)*						
	1971	0.39 (3.05)*	0.42 (3.34)*	0.50 (4.16)*	0.53 (4.50)*	0.53 (5.00)*	0.57 (5.00)*						
	1981	0.57 (5.09)*	0.28 (2.14)*	0.35 (2.74)*	0.33 (3.02)*	0.33 (4.59)*	0.53 (4.59)*						

Note : The figures in parenthesis are t-values of the coefficients.

\* Significant at 1% level.

\*\* Significant at 5% level.

Source : Calculated from Census of India, U.P.; 1961, 1971, 1981.

coefficients have also been calculated between the household and other than household industrial workers.

In U.P. urban, the association of household workers with cultivators has increased, whereas its association with agricultural workers decreased during 1961-1981. The correlation of other than household industrial workers with agricultural workers as well as with cultivators has declined from 1961 to 1981. The value of the correlation coefficients are statistically significant at 1% level. A negative and statistically not significant relationship between household industrial workers and agricultural workers is observed in case of Bundelkhand. The Western region registered a rapid decline in its values in 1981. Over the decades declining association between agricultural activities with manufacturing activities in urban areas confirms the trend that with the development the growth of household industrial workers should be associated with the growth of non-household workers rather than with the workers engaged in agricultural activites.

The correlation coefficient between household industrial workers and other than household workers is positive and significantly high in all regions, though it is declining over the decades. In the Western region it was 0.90 in 1971 which declined to 0.14 in 1981. In the Hill region, it declined from 0.92 to 0.80 from 1971 to 1981. The Central region registered a decline from 0.95 to 0.84 whereas a marginal decrease from 0.79 to 0.76 was observed in the Eastern region. Significantly high association between the household employment indicates existence

of complimentary relations between the two. The high value of correlation coefficient does not mean growth of handicrafts and village industries based on age old traditional technology but it reflects the growth of informal sector as a product of the capitalist process of development which makes it subjugated to the formal sector (Breman, 1976) Such development patterns are also observed by Mishra et.al.(1984; 40-41), who empirically substantiates that the traditional sector of petty producers in India remained segregated from the modern sector not only spatially but also 'technologically and organisationally' in the historical process of change and development. The economies of household production do not favour the application of improved technology, therefore, traditional sector of production continued to operate without gaining from modern science and technology. Thus, according to Mishra et.al.(1984:44) :

"... the coexistence of these two sectors presents a case of historical continuity of the pre capitalist and capitalist modes of production. The dominance of the latter creates a number of forces to exploit the traditional units of production in different forms and orders".

Therefore, positive and high value of correlation coefficient between household workers and other than household workers requires a very careful analysis and the argument of existence of complementary relationships between the two have to be considered in a very restricted sense of the term.

The following conclusions may be summarily drawn from the whole analysis.

- (i) The work participation rate in cities and other urban areas in U.P. is declining, therefore cities are observing high dependency ratios.
- (ii) In the Western region, which is an agriculturally developed region, transformation of occupational structure is in the process. Rest of the regions are unable to bring any significant change in occupational structure.
- (iii) A weak economic base is getting created in cities as there is an increasing dominance of workers in agricultural activities.
- (iv) Industrialisation process prevalent in U.P. is unable to change the occupational structure in favour of non-agricultural economic activities.
- (v) The distribution of workers, in different industrial activities is tending towards homogeneity almost in all regions.
- (vi) A significant and positive value of correlation between the household employment with other than household employment indicates existence of complementary relations between the two.

Appendix 3.4

## Functional Categories of towns 1961 and 1971

Functional Categories	No. of Towns	
	1961	1971
1	2	3
Mono Functional	133	127
1. Service	66	83
2. Primary Activities	25	3
3. Industry	26	28
4. Transport	13	11
5. Commercial	3	2
Bi-Functional	67	78
1. Industry - Cum - Service	11	21
2. Service - Cum - Commercial	13	14
3. Primary activities - cum -Industry	6	1
4. Commercial - Cum - Service	5	4
5. Industry - Cum - Primary Activties	5	2
6. Service - cum - Industry	4	23
7. Primary Activities - cum - service	4	4
8. Industry - Cum - Commercial	4	2
9. Commercial - Cum - Industry	4	1
10. Primary Activities - Cum - Commercial	3	-
11. Commercial - Cum - Primary Activities	2	1
12. Service - Cum - Priamry Activities	2	5
13. Transport - Cum - Service	1	-
14. Commercial - Cum - Transport	1	-
15. Industry - Cum - Transport	1	-
16. Primary Activities - Cum - Transport	1	-
Multi Functional	133	79
1. Service -Cum-Commercial-Cum-Industry	10	10
2. Industry-Cum-Service-Cum-Commercial	13	4
3. Primary Activities-Cum-Commercial-Cum-Industry	9	1
4. Service-Cum-Industry-Cum-Commercial	10	8
5. Industry-Cum-Commercial-Cum-Service	8	5
6. Industry-Cum-Primary Activities-Cum-Commercial	9	1
7. Primary Activities-Cum-Service-Cum-Commercial	9	1
8. Commercial-Cum-Industry-Cum-Service	6	2
9. Primary Activities-Cum-Industry-Cum-Commercial	8	-

10. Primary Activities-Cum-Industry-Cum-Service	6	2
11. Industry-Cum-Commercial-Cum-Primary Activities	5	-
12. Primary Activities-Cum-Commercial-Cum-Service	6	-
13. Indsutry-Cum-Service-Cum-Primary Activities	3	7
14. Commercial-Cum-Service-Cum-Industry	4	4
15. Primary Activities-Cum-Service-Cum-Industry	4	4
16. Commercial-Cum-Primary Activities-Cum-Service	4	1
17. Industry-Cum-Primary Activities-Cum-Service	4	4
18. Service-Cum-Transport-Cum-Industry	2	-
19. Service-Cum-Commercial-Cum-Primary Activities	2	2
20. Service-Cum-Primary Activites-Cum-Commercial	1	5
21. Commercial-Cum-Primary Activities-Cum-Industry	3	-
22. Service-Cum-Primary Activities-Cum-Industry	-	6
23. Primary Activities-Cum-Transport-Cum-Commercial	1	-
24. Service-Cum-Industry-Cum-Primary Activities	1	3
25. Commercial-Cum-Industry-Cum-Primary Activities	2	1
26. Commercial-Cum-Transport-Cum-Industry	1	2
27. Commercial-Cum-Transport-Cum-Industry	1	-
28. Commercial-Cum-Transport-Cum-Service	1	-
29. Service-Cum-Transport-Cum-Commercial	-	1
30. Transport-Cum-Primary Activities-Cum-Service	-	1
31. Commercial-Cum-Service-Cum-Transport	-	2
32. Industry-Cum-Service-Cum-Transport	-	1
33. Service-Cum-Friamry Activities-Cum-Transport	-	1

Source :- Census of India, 1971, Part VI-A, Town Directory,  
U.P., p.9 & 10.

APPENDIX 3.2  
CITY-WISE INDEX OF INDUSTRIALISATION

CITY	YEAR	I.IND.(T)	I.IND(U)
1 DEHRADUN			
	1951	1.14	
	1961	1.87	0.57
	1971	2.05	0.59
	1981	2.14	0.72
2 RAMPUR			
	1911	5.27	
	1921	1.80	
	1931	1.60	
	1951	2.92	
	1961	3.81	1.17
	1971	4.38	1.26
	1981	4.07	1.38
3 MATHURA			
	1901	1.52	
	1911	5.05	
	1921	1.52	
	1931	1.99	
	1951	1.82	
	1961	2.11	0.65
	1971	2.79	0.80
	1981	2.92	0.99
4 SHAHJAHANPUR			
	1901	2.12	
	1911	6.57	
	1921	2.86	
	1931	2.57	
	1951	2.63	
	1961	1.98	0.61
	1971	3.62	1.04
	1981	2.63	0.89
5 MIRZAPUR			
	1901	2.28	
	1911	6.22	
	1921	1.33	
	1931	2.75	
	1951	3.28	
	1961	3.96	1.21
	1971	3.78	1.09
	1981	4.57	1.54

Continued...

CITY	YEAR	I. IND. (T)	I. IND (U)
6 KANPUR			
	1901	2.17	
	1911	5.59	
	1921	2.67	
	1931	3.73	
	1951	4.64	
	1961	4.71	1.44
	1971	4.67	1.34
	1981	4.04	1.37
7 LUCKNOW			
	1901	1.70	
	1911	5.76	
	1921	1.77	
	1931	1.74	
	1951	2.18	
	1961	2.95	0.90
	1971	2.83	0.81
	1981	2.30	0.78
8 AGRA			
	1901	2.28	
	1911	8.35	
	1921	3.65	
	1931	3.59	
	1951	2.64	
	1961	3.86	1.18
	1971	4.42	1.27
	1981	3.64	1.23
9 VARANSI			
	1901	3.02	
	1911	9.01	
	1921	4.63	
	1931	4.03	
	1951	3.66	
	1961	4.79	1.46
	1971	4.95	1.42
	1981	0.08	0.03
10 ALLAHABAD			
	1901	1.57	
	1911	4.53	
	1921	1.95	
	1931	1.91	
	1951	2.13	
	1961	2.64	0.81
	1971	2.79	0.80
	1981	2.52	0.85

Continued...

CITY	YEAR	I.IND. (T)	I.IND (U)
11 MEERUT			
	1901	1.72	
	1911	4.68	
	1921	1.76	
	1931	1.79	
	1951	1.82	
	1961	3.02	0.92
	1971	3.31	0.95
	1981	3.14	1.06
12 BARELLIE			
	1901	2.52	
	1911	6.83	
	1921	2.76	
	1931	3.00	
	1951	2.56	
	1961	3.46	1.06
	1971	3.52	1.01
	1981	3.34	1.13
13 MORADABAD			
	1901	2.57	
	1911	7.90	
	1921	3.44	
	1931	3.17	
	1951	3.28	
	1961	4.56	1.40
	1971	4.27	1.23
	1981	4.93	1.67
14 SAHARANPUR			
	1901	1.64	
	1911	4.99	
	1921	1.75	
	1931	2.32	
	1951	2.57	
	1961	3.76	1.15
	1971	4.22	1.21
	1981	3.64	1.23
15 ALIGARH			
	1901	2.33	
	1911	8.10	
	1921	3.34	
	1931	3.25	
	1951	3.45	
	1961	3.89	1.19
	1971	4.48	1.29
	1981	3.79	1.28

Continued...

CITY	YEAR	I.IND.(T)	I.IND(U)
<hr/>			
16 GORAKHPUR			
	1901	2.62	
	1911	6.15	
	1921	2.11	
	1931	2.42	
	1951	2.52	
	1961	3.40	1.04
	1971	2.40	0.69
	1981	2.21	0.75
17 JHANSI			
	1901	2.03	
	1911	4.57	
	1921	1.66	
	1931	1.92	
	1951	2.45	
	1961	2.44	0.75
	1971	2.07	0.59
	1981	2.05	0.69
18 HARDWAR			
	1961	1.59	0.49
	1971	1.93	0.55
	1981	3.19	1.08
19 MUZAFFARNAGAR			
	1961	2.10	0.64
	1971	2.65	0.76
	1981	2.52	0.85
20 GHAZIABAD			
	1961	3.56	1.09
	1971	4.69	1.35
	1981	3.20	1.08

Continued...

CITY	YEAR	I.IND.(T)	I.IND(U)
21 HAFUR	1961	2.29	0.70
	1971	2.99	0.86
	1981	2.63	0.89
22 SAMBAL	1961	3.81	1.17
	1971	3.69	1.06
	1981	3.08	1.04
23 AMROHA	1961	4.01	1.23
	1971	4.51	1.29
	1981	4.43	1.50
24 FIROZABAD	1961	7.54	2.31
	1971	7.82	2.24
	1981	6.09	2.06
25 FARUKHABAD C.FATEHGARH	1961	3.78	1.16
	1971	3.98	1.14
	1981	3.32	1.12
26 ETAWAH	1961	2.37	0.72
	1971	3.16	0.91
	1981	3.40	1.15
27 FAIZABAD	1961	2.31	0.71
	1971	2.36	0.68
	1981	1.96	0.66
28 JAUNPUR	1961	2.76	0.84
	1971	3.05	0.88
	1981	3.15	1.07

SOURCE: Prepared from Census Reports, 1961, 1971, 1981, U.P.

NOTE: I.IND.(T) and I.IND(U) represents industrial performance of towns relative to total and urban performance of the state respectively.

## APPENDIX 3.3

DISTRICT-WISE INDEX OF INDUSTRIALISATION, 1961-1981.

DISTRICT	INDEX OF INDUSTRIALISATION		
	1961	1971	1981
1 GAZIABAD	-	-	1.33
2 AGRA	1.32	1.39	1.33
3 ALIGARH	1.1	1.15	1.05
4 BARELLY	1.02	0.98	0.98
5 BIJNOR	0.83	0.89	0.93
6 BADAUN	0.58	0.6	0.58
7 BULANDSHAHAR	0.84	0.83	0.94
8 ETAH	0.86	0.86	0.77
9 ETAWAH	0.7	0.84	0.91
10 FARRUKHABAD	0.94	0.04	1.04
11 MATHURA	1.05	0.7	0.97
12 MAINPURI	0.74	0.79	0.74
13 MEERUT	0.59	1.11	0.85
14 MORADABAD	1.19	1.13	1.33
15 MUZAFFARNAGAR	0.77	0.83	0.75
16 PILIPHIT	0.84	0.79	0.71
17 RAMPUR	1.13	1.19	1.08
18 SAHARANPUR	0.86	0.95	0.95
19 SHAHJAHANPUR	0.61	0.91	0.79
WESTERN REGION	0.98	1.04	1.02
20 BARABANKI	1.09	1.17	1.05
21 FATEHPUR	0.75	0.65	0.76
22 HARDOI	0.61	0.66	0.73
23 KANPUR	1.44	1.34	1.33
24 LAKHIMPURKHERI	0.9	0.83	0.72
25 LUCKNOW	0.9	0.81	0.77
26 RAE BARELI	0.69	0.71	0.77
27 SITAPUR	0.71	0.79	0.82
28 UNNAO	0.66	0.64	0.69
CENTRAL REGION	1.13	1.06	1.01

Continued..

## APPENDIX 3.3

DISTRICT	INDEX OF INDUSTRIALISATION		
	1961	1971	1981
30 AZAMGARH	1.8	1.95	1.74
31 BAHRAICH	0.76	0.73	0.78
32 BALLIA	0.76	0.57	0.61
33 BASTI	0.47	0.58	0.94
34 DEORIA	0.73	0.85	0.71
35 FAIZABAD	1.18	1.21	1.13
36 GHAZIPUR	0.69	0.71	0.89
37 GONDA	0.73	0.74	0.73
38 GORAKHPUR	1.05	0.71	0.78
39 JAUNPUR	0.86	0.88	1.08
40 MIRZAPUR	0.97	1.13	1.3
41 PRATAPGARH	0.61	0.61	0.75
42 SULTANPUR	0.63	0.53	0.71
43 VARANASI	1.41	1.41	1.5
EASTERN REGION	1.06	1.05	1.09
44 ALMORA	0.32	0.34	0.43
45 CHAMOLI	0	0.31	0.24
46 DEHRADUN	0.49	0.5	0.77
47 NANITAL	0.69	0.69	0.8
48 PITHORAGARH	0	0.27	0.49
49 PAURI GARHWAL	0.36	0.38	0.41
50 TEHRI GARHWAL	0.29	0.29	0.24
51 UTTAR KASHI HILL REGION	0.49	0.4	0.44
52 BANDA	0.52	0.52	0.68
53 HAMIRPUR	0.64	0.62	0.56
54 JALAUN	0.59	0.52	0.48
55 JHANSI	0.67	0.67	0.72
56 LALITPUR	0.76	0.66	0.76
BUNDELKHAND	-	-	0.74
UTTAR PRADESH	0.7	0.63	0.66
	1	1	1

Notes:

## Chapter 3

1. Central place theory by Christaller in thirties viewed that the growth of a city depends upon its specialisation in urban service functions i.e. on its ability to supply goods and services. The economic base theory which emerged during the Fifties addressed itself purely to urban economic growth and held that basic activities were key to the city growth.
2. The idea is similar to that of Clark's (1951) which he proposed in his book 'Conditions of Economic Progress'.
3. Mitra (1964 : 55) is of the view that high agricultural ratio in lower order towns has limited role to play in the growth of these towns as well as in economic and industrial expansion.
4. Raza (1981 : 88) also reaches the same conclusion, analysing process of urbanisation in independent India that : "with a substantial primary sector, many of them give the appearance of, and are, in reality glorified villages or a cluster of glorified villages, unified by the dilapidated market". Though Mitra is optimistic that these agricultural towns may be symptomatic of high potential of rapid change.
5. Banerjee (1969 : 1173) presents a comparative picture of India's economic development and urban trend with United States from a study by Hoselitz (1962). India's urban population was about 10% of its total population which United States attained around 1839. After fifty years, in 1890, American urban population rising at a compound growth rate of 5%. In India, on the other hand, after 50 years from 1911 urban population shared 17.3% of the total population rising at the rate of 1.8% per annum.
6. Index of urbanisation and industrialisation has been calculated using the following formula developed/proposed by Mattila and Thompson (1966:333)

(i) Index of urbanisation =  $Ui/Ut \div Ui/Ut$  where

$Ui$  : Urban population of the district

$Ut$  : Total population of the district

$Ui$  : Urban population of the state

$Ut$  : Total population of the state

(ii) Index of Industrialisation

$$= ei/et \div Ei/Et$$

Where :

$ei$  = urban workers in manufacturing activities in a district/city

et = Total urban workers in the district/city.

Ei = urban workers in manufacturing activities in the state.

Et = Total urban workers in the state.

In essence, the index signifies the extent of urbanisation or industrialisation in a district/city relative to the level of the urbanisation or industrialisation in the state.

7. Dayal and Bajpai (1988 : 5) observe that "in 30 years between 1951 to 1981, the employment in cotton textile industry dropped from 57547 to 30261, though the population of the city during this period increased 2 1/2 times, from 0.7 Lakhs to 16.4. The decline in general health and service are marked and the town bears every sign of deterioration."
8. Sinha (1988 : 18) finds in a study with special reference to U.P. that growth of employment in modern manufacturing and tertiary sector in either large (.01 m+) towns or those located in agriculturally developed region was higher than in other categories of towns.
9. Dholakia (1985) defined 'dependency ratio in urban areas' as ratio of urban population to workers in urban areas. It is nothing but inverse of the work participation rate.
10. In 1981, there were as many as 704 towns in U.P. out of which 383 were new towns which sprung up during the decade 1971-1981. (Town Directory, Part X-A series 22, Ceusus of India, U.P., 1981).

CHAPTER 4URBANISATION AND DEVELOPMENT4.1 The Relationship:

Urbanisation is a natural and inevitable consequence of economic development, though in developing countries it is not necessarily a result of economic development (Mills, 1986:17). Therefore, the notion that urban growth and economic growth go hand in hand has become increasingly a debatable issue. The scholars have noticed certain processes of urbanisation particularly in developed economies in which particular urban relations do not contribute to economic progress.<sup>1</sup> This is witnessed by the fact that growing economies of towns which do not ensure corresponding development of their countrysides and vice-versa. Therefore, analysis of economic development of different sectors which influence urbanisation would be relevant in the present context to understand the pattern of urbanisation taking place in Uttar Pradesh.

During the fifties many economists were engaged in search of a rationale for proper allocation of investment between agriculture and industry. Authors such as Mellor<sup>2</sup> (1976) favoured agricultural development and emphatically argued that agricultural sector must be made more productive in order to enhance rural household incomes, a substantial portion of which would be spent on non-agricultural commodities leading to industrial and urban development. Counterposed to this argument is the idea that industrial and urban growth are prerequisites for a more modern and productive agricultural sector (Fie and

Ranis, 1966). These rural-agricultural and urban-industrial ways of development are linked to the basic debate and controversies over the balance of advantages associated with growth (Nurkse, 1952), a 'big push' towards industrialisation (Rosenstein-Rodan, 1943; Prebisch, 1950) or a programme of balanced imbalances (Hirschman, 1958).

However, as pointed out by Ownens and Shaw (1972 : 25) more equitable and widespread economic development requires the organisation of space in such a way as to reinforce the mutually beneficial interactions between cities and countryside, and also between agriculture and industrial development. Modern agriculture shows tremendous mobility in goods and services and people. It moves out people and things off the farm and the villages, but it also moves in industrial inputs like fertilizers, pesticides and farm machines. Consequently, it seems that modernisation of agriculture is among the most important preconditions for smooth urbanisation.

It can not be doubted that economic development such as modernisation of agriculture, on the one hand, and development of manufacturing in the cities, on the other, hastens the process of migration of rural people to urban areas thus, contributing to the process of rapid urbanisation. However, it is pertinent to examine and analyse (i) whether or not industrialisation in urban areas has been able to absorb much of the freed labour from agriculture as its productivity increased; (ii) whether or not the release of labour from agriculture could increase incomes of the more productive farm households staying

in the rural areas; (iii) and, also whether or not adequate food supply could be made available at reasonable prices in cities. Therefore, the combined effect of agricultural and industrial development is essential to be considered in our analysis to understand the irrevocably linked process of urbanisation with economic development in the context of Uttar Pradesh.

#### 4.2 Description of the Variables:

A linear and log-linear multiple regression model has been selected to analyse the aforesaid aspects. The number of districts on which information has been calculated, constitute number of observations. The list of selected dependent and independent variables has been given in the appendix of this chapter. The details of the variables are as follows :

##### 4.2.1 Urbanisation

In the model, urbanisation has been considered as a dependent variable which may be conceptualised as in a district:

- (i) population percentage in cities of one million or more;
- (ii) population percentage in cities of 20,000 and more;
- (iii) population percentage of all the cities to total population;

As is intended to be explained the phenomenon of urbanisation in a broader perspective i.e. considering the impact of agricultural development which influences smaller settlements directly connected with the rural areas than the bigger and

metropolitan cities, therefore the rationale for selecting measure (i) is not justifiable. Besides, it is also argued that people tend to move from rural areas first to less expensive and medium sized towns with some employment opportunities instead of going directly to large cities (Pandey, 1977:269). Hence, the first measure does not qualify for consideration in the present analysis.

The independent variables, which primarily concern both agriculture and industry, are described below;

The following indicators have been selected to incorporate all aspects related to industrialisation.

#### 4.2.2 Value added per industrial worker

The indicator has been prepared on the basis of the information about the value added and number of workers in registered industrial sector as recorded in the reports of Annual Survey of Industries for the years 1961, 1971 and 1981. This indicator has been selected on the assumption that value added per industrial worker reflects greater industrial wages and profit margins which accentuate industrialisation vis-a-vis urbanisation.

#### 4.2.3 Concentration of industries

The number of registered industries per thousand square kilometres of area is treated as proxy to concentration of industries. It is considered that higher concentration brings

greater 'agglomeration economies' attracting higher degree of industrialisation leading to greater degree of urbanisation.

#### 4.2.4 Workers percentage in manufacturing sector

This is defined as the percentage of total urban workers engaged in both household industries and other than household industries. In earlier studies, this has generally been used as a proxy indicator of industrialisation. Many studies have considered the percentage of non-agricultural activities as indicators of industrialisation which influences the size of the urban areas of their location (Mills and Becker, 1988 : 21, Sampat, 1972). Moir (1977, 39), however, confirmed empirically that the relationship between the level of urbanisation and the non-agricultural share of the labour force neither affects nor is affected by the development level particularly in less developed countries. Therefore, the workers in manufacturing sector, which constitute the productive economic sector of urban centres, has been preferred in this study.

#### 4.2.5 Agro-based industries

The choice of this indicator is made to understand whether agricultural development is able to provide agricultural inputs at reasonable prices resulting in growth of agro-processing units.

#### 4.2.6 Metal-and chemical-based industries

The choice of this variable is made mainly

because of its complementarity with agro-based industries.

The following variables which explain agricultural development have been considered in the model:

#### 4.2.7 Average yield per hectare

This indicator is represented by the ratio of total output to the gross cropped area.. The choice is based on the assumption that higher average yield will be able to generate higher agricultural incomes which in turn will lead to increased demand for urban goods. As a consequence of this, increased demand for urban goods will attract labour from rural areas, and in effect, quicker introduction of labour saving technology in agriculture will take place (Mohan, 1983 : 40).<sup>4</sup>

#### 4.2.8 Cropping intensity

Cropping intensity is another proxy of agricultural development. In a study of agricultural development in U.P., cropping intensity has been found to be the important measure reflecting agricultural development (Banerjee, 1986:95). It reflects the use of new HYV inputs in irrigated fields with modern cultivation technologies. It is defined as the ratio of gross cropped area to net sown area.

#### 4.2.9 Land-man ratio

The most commonly used indicator reflecting impact of de-urbanisation in British period (Ranadive, 1987:240) is measured

here as the ratio of the net sown area to the total rural population. In other words, it measures operated area per head of rural population. The indicator is inverse of the man-land ratio which has been used to prove that excessive pressure on operated area is a major factor of over-urbanisation in South Asian countries (Davis et.al, 1954 : 7). The indicator is aimed to examine whether the above mentioned hypothesis holds good in the context of Uttar Pradesh.

#### 4.2.10 Per capita value of agricultural produce

The choice of this indicator rests on benefit considerations. In this context, we notice that in crops like pulses, although the average yield is generally low, the value of its produce is found to be significantly high as compared to most of the cereal crops. It is defined as the ratio of gross value of agricultural produce to the rural population.

The following are the two other indicators associated with the agricultural as well as industrial development.

#### 4.2.11 Per capita income

Due to the non-availability of the district-wise data of income for all the sectors, the income of five commodity-producing sectors at constant price of 1961 has been taken to measure this indicator.<sup>5</sup>

#### 4.2.12 Index of wage disparity

According to Lipton (1977a:145) productive workers

have a greater capacity than the unproductive workers to purchase various consumer products. Moreover, according to Fei and Ranis (1966) higher wages are paid in industrial sector due to higher productivity of workers in the modern industrial sector. Therefore, the wage disparity encourages outflow of people from rural areas to urban areas. As a measure, it is the ratio of per worker wages between agriculture and industry wages.

#### 4.3 Choice of Model:

The technique of multiple regression has been applied at three points of time i.e. 1961, 1971 and 1981, considering various indicators of development as explanatory variables, and urbanisation as dependent variables. Among many equations the one considering relationship of urbanisation as a dependent variable with the explanatory variables has been found to be the best fit for all the three years. Moreover, the relationship obtained in case of log-linear functional form is better than that obtained in case of additive model, as the standard error of the regression drops down and value of  $R^2$  increases significantly in case of log-linear model. The logarithmic functional relationship has the distinct advantage of providing factor elasticities and also eliminates the effect of differential sizes of variables used in the model. Nevertheless, log-linear model considers multiplicative effect of the explanatory variables on dependent variable which is more realistic than the additive effect of explanatory variables. The variables have been added one by one in the model to test the

stability of individual explanatory variables. This takes into account the possibility of multicollinearity and helps to eliminate from the model the variables prone to it.

#### 4.4 Regression Results :

Both the Tables 4.1 and 4.2 present the correlation matrix and regression coefficients of the selected variables for 1961. The explanatory power of the selected indicators is quite high as corrected  $R^2$  is 0.88 and the values of F test are also statistically significant, confirming the validity of the model. The regression coefficients of the selected indicators are discussed below.

There are two indicators related to agriculture: cropping intensity , and per capita value of agricultural produce, which have significantly contributed to the process of urbanisation in 1961. The values of these coefficients are 0.0766 significant at 1% and 0.1679 at 5% , respectively. The regression of the variables coefficients significantly related to industrialisation are; value added per industrial worker, workers in manufacturing sector, and metal and chemical based industries. The regression coefficients of these indicators are 0.0766 at 1.00% level, 1.076 at 1.00% level and 0.0246 significant at 5% level, respectively. The per worker income shows a positive association with urbanisation, whereas its relationship with the index of wage disparity is found to be negative. The value of the coefficient of per worker income is 0.8292 and the value of the coefficient of wage disparity is -0.0796 which are significant at

Table 4.1  
Correlation Matrix of Variables in 1991.

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	Y1
X1	1.00											
X2	0.21	1.00										
X3	0.31	0.15	1.00									
X4	-0.12	-0.01	-0.11	1.00								
X5	-0.18	-0.06	-0.11	0.25	1.00							
X6	0.38	0.24	0.27	-0.13	-0.20	1.00						
X7	0.27	0.19	-0.09	0.23	-0.08	0.36	1.00					
X8	0.64	0.25	0.25	-0.12	-0.17	0.95	0.33	1.00				
X9	0.62	0.53	0.05	-0.19	-0.09	0.65	0.29	0.53	1.00			
X10	0.41	0.23	0.04	-0.08	0.10	0.46	0.49	0.40	0.40	1.00		
X11	0.44	0.03	0.25	-0.21	-0.21	0.45	0.15	0.43	0.24	0.10	1.00	
Y1	0.41	0.02	0.16	-0.10	-0.13	0.42	0.38	0.39	0.24	0.24	0.60	1.00

Note: For the details of the variables, please see Appendix of the chapter.

Table = 4.2

The Regression Results Of Urbanisation and Development for 1961.

TERM	COEFFICIENT	STANDARD ERROR	T-STATISTIC
1. Constant	.4044237	.6684531	.6050143
2. Value added per industrial worker	.0766010	.0293913	2.60624*
3. Cropping Intensity	.8492232	.3587195	2.367375*
4. Per-Capita Income	.8292288	.3187433	2.601557*
5. Workers in Manufacturing Sector	1.076353	.2457364	4.380113*
6. Index of Wage Disparity	-.0796381	.0457620	-1.740264**
7. Metal and Chemical based Industries	.02468048	.0173834	1.41977***
8. Per-Capita value of Agricultural Produce	.1679185	.04269645	3.940875*

	SUM SQ	DEGREES OF FREEDOM	MEAN SQ
DUE TO REGRESSION	174.0397	7	24.86281
ABOUT REGRESSION	19.03044	41	.464157
TOTAL	193.0701	48	4.022294

R-SQUARED .90 CORRECTED R SQUARED: .88  
 F-TEST 53.56552\* STD ERROR OF REGRESSION .6812907  
 DURBIN-WATSON : 2.2638

\* Significant at 1% level.

\*\* Significant at 5% level.

\*\*\*Significant at 10% level.

1% and 5% level. Therefore, contrary to the wage disparity, per capita income seems to have played an activating role in the process of urbanisation during 1961.

The variables which are discarded in the step-wise calculations of regression coefficients of the variables: land - man-ratio, concentration of industries, agro-based industries and average yield per hectare in agriculture which could not make a significant contribution to the value of  $R^2$ . The variable concentration of industries in 1961 has not been considered for the analysis due to its high correlation with other explanatory variables such as value added per industrial worker and index of wage disparity. The other three variables which were not considered, include: agro-based industries, land-man ratio, and average yield per hectare. Due to its low level in 1960s most of the rejected variables were primarily concerned with agricultural development. On the basis of the variables incorporated in the model the following conclusions emerge:

(i) The negative relationship of the variable index of wage disparity with urbanisation signifies that relative advantage of agricultural wages over industrial wages made people stay in rural areas rather than migrate.

(ii) It seems that the Government's emphasis on establishment of heavy industries in the Second Five Year Plan resulted in a spurt of metal and chemical-based industries at different urban centres, contributing significantly to the process of urbanisation.

(iii) The regression coefficient of the variable, per capita income from the commodity - producing sector which is significant at 1% level supports the theoretical base that greater per capita income generates greater demand for non-food items which, in turn, accelerates process of industrialisation leading to a higher rate of urbanisation.

(iv) It is shown from the value of the coefficient of male workers in manufacturing sector (1.0763) that employment in this sector was able to bring about a proportionate change in urbanisation.

(v) The indicator, cropping intensity, supported by a positive and significant value of the regression coefficient seems to have led to urbanisation either due to greater demand for non-food items resulting from higher agricultural incomes or higher rate of displacement of labour from agricultural activities resulting from greater degree of mechanisation in agriculture.

(vi) A statistically significant regression coefficient, value of agricultural produce validates our first argument given in the preceding conclusion that intensification of cropping leads to greater value of agricultural product, thus, generating greater demand for non-food items.

Table 4.3 and 4.4 present correlation matrix and regression results of the selected variables for the year 1971. The explanatory power of the selected variables is 0.95 which is indeed remarkably high. The F statistics is also significant at

Table 6.3

## Correlation Matrix of Variables in 1971.

	$Z_1$	$Z_2$	$Z_3$	$Z_4$	$Z_5$	$Z_6$	$Z_7$	$Z_8$	$Z_9$	$Z_{10}$	$Z_{11}$	$Z_{12}$
$Z_1$	1.00											
$Z_2$	0.06	1.00										
$Z_3$	-0.28	0.43	1.00									
$Z_4$	0.30	-0.06	-0.40	1.00								
$Z_5$	-0.00	0.46	0.46	0.08	1.00							
$Z_6$	0.96	0.16	-0.27	0.30	-0.02	1.00						
$Z_7$	0.39	0.18	-0.20	0.09	-0.08	0.54	1.00					
$Z_8$	0.83	0.03	-0.46	0.28	-0.25	0.64	0.37	1.00				
$Z_9$	0.53	0.21	-0.17	0.31	0.08	0.66	0.51	0.51	1.00			
$Z_{10}$	0.30	0.31	-0.02	0.06	0.07	0.46	0.60	0.34	0.59	1.00		
$Z_{11}$	0.61	-0.09	-0.67	0.13	-0.32	0.63	0.35	0.64	0.41	0.28	1.00	
$Z_{12}$	0.62	0.23	-0.37	0.24	-0.05	0.75	0.70	0.58	0.69	0.60	0.60	1.00

NOTE: For the details of the variables, please see Appendix of the chapter.

Table 4.4

Regression results of Urbanisation and Development for 1971.

TERM	COEFFICIENT	STANDARD ERROR	T-STATISTIC
1. Constant	.1121324	.434422	.2581186
2. Cropping intensity	2.10112	.1158506	18.13647*
3. Land-man ratio	.5357122	.1452334	3.688629*
4. Concentration of industries	.116687	.02620128	4.453482*
5. Workers manufacturing sectors	.8562088	.1555827	5.50324*
6. Index of wage disparity	-.1644527	.0372414	-4.415851*
7. Metal and Chemical based industry	.03058567	.0089375	3.422169*
8. Per-capita value of agricultural produce	.1441322	.02016389	7.148035*

	SUM SQ	DEGREES OF FREEDOM	MEAN SQ
DUE TO REGRESSION	197.6456	7	28.23508
ABOUT REGRESSION	8.951828	47	.1904644
TOTAL	206.5974	54	3.825878

R-SQUARED .95 CORRECTED R SQUARED: .95  
 F-TEST 148.2434\* STD ERROR OF REGRESSION: .4364223  
 DURBIN-WATSON : 2.0375

\* Significant at 1% level.  
 \*\* Significant at 5% level.  
 \*\*\*Significant at 10% level.

1% level confirming appropriateness of the selected variables in explaining the assumed relationship. The significant regression coefficients of the indicators, which are related to agriculture, are: cropping intensity, land-man ratio, and value of agricultural produce. Important variables concerning industrialisation appearing in regression equation are : concentration of industries, workers in manufacturing sector, and metal- and chemical- based industries. Besides, index of wage disparity is also statistically significant.

The value of the coefficient of the variable, cropping intensity, increased from 0.8492 in 1961 to 2.10 in 1971. The value of the coefficient of workers in manufacturing sector declined from 1.07 in 1961 to 0.85 in 1971. Value of the rest of the significant coefficient of the variables as noticed in 1971 are: land-man ratio (0.5367), concentration of industries (0.1166), index of wage disparity (-0.1644), metal- and chemical-based industries (0.3305) and value of agricultural produce (0.1441), all significant at 1% level.

The variable, value added per worker, has been disregarded because of its very close association with the variables- mainly, concentration of industries and index of wage disparity. A few other variables, which have not been included in the model are: per capita income, average yield per hectare and agro-based industries, because of their insignificant contribution to the value of  $R^2$ .

The regression results suggest that in 1971, the

variable, cropping intensity, contributed remarkably high in the process of urbanisation. A change of 1% in cropping intensity was able to bring about a change in urban population by 2.10%.

The coefficient of the variable workers in manufacturing sector suggests that 1% change in workers brought about a change in urban population by 0.85%. A decline in the power of the coefficient of the variable, workers in manufacturing sector, is observed during 1971 compared to its value in 1961 when it resulted in an almost proportionate change in urban population. This shows that during 1971 the contribution of 'push' factors dominated over the 'pull' factors in accentuating urbanisation.

Moreover, significant regression coefficient of the variable, cropping intensity, along with per capita value of agricultural produce, indicates that modernisation in agriculture helps in enhancing the value of agricultural produce, and thereby income which raises demand for non-agricultural products.<sup>7</sup> Such changes in demand help to raise returns to labour and other inputs in industry and service relative to those in agriculture. This provides an inducement to workers and other inputs to move from agriculture to other sectors.

The significant regression coefficients of the variables, concentration of industries, and metal- and chemical-based industries support the hypothesis that to gain agglomeration economies many industries with strong industrial linkages emerge at a particular centre. Thus the concentration of

industries signifies greater pace of industrialisation, which in turn, influences urbanisation positively.

The variable land-man ratio is found to be significant implying that higher availability of cultivable land per capita of rural population leads to greater degree of urbanisation. In other words, lower pressure of population on agricultural land results in an increased urbanisation, and vice-versa. This finding strengthens Sovani's (1966:8) critique of Hoeselitz' (1957) and Davis' (1954) argument that overpopulation is the major cause of rapid urbanisation in developing countries.<sup>8</sup>

Tables 4.5 and 4.6 exhibit correlation and regression coefficients of the final point of time in our study, i.e., 1981. The explanatory power of the selected variables is quite high as is evident from the value of  $R^2$ . Statistically significant F test ensures that the selected model is fit for predictions and explanations.

The variables, showing relationship of urbanisation with agricultural development, are cropping-intensity, land-man ratio and per capita value of agricultural produce. The variables particularly associated with industrialisation, as noticed in the equation include: concentration of industries, agro-processing industries, and workers in manufacturing sector.

To avoid multicollinearity, the variable, value added per industrial worker, is discarded due to its high degree

Table 4.5  
Correlation Matrix of Variables in 1981.

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	Y1
X1	1.00											
X2	0.18	1.00										
X3	0.27	0.60	1.00									
X4	-0.35	-0.40	-0.52	1.00								
X5	0.94	0.57	0.37	0.05	1.00							
X6	0.71	0.28	0.18	-0.16	0.15	1.00						
X7	0.22	0.22	0.14	-0.16	0.13	0.48	1.00					
X8	0.36	0.21	0.32	-0.36	-0.02	0.71	0.16	1.00				
X9	0.18	0.03	0.12	0.17	0.21	0.43	0.41	0.35	1.00			
X10	0.85	0.10	0.12	0.02	0.26	0.37	0.62	0.19	0.59	1.00		
X11	0.18	-0.43	-0.27	0.23	-0.29	0.31	0.15	0.25	0.31	0.34	1.00	
Y1	0.36	0.00	-0.02	0.09	0.09	0.64	0.70	0.37	0.64	0.65	0.61	1.00

Note: For the details of the variables, please see Appendix of the chapter.

Table 4.6

Regression Results of Urbanisation and Development for 1981.

TERM	COEFFICIENT	STANDARD ERROR	T-STATISTIC
1. Constant	.1696702	.4526131	.3748686
2. Cropping intensity	2.252034	.1278254	17.61809*
3. Land-man ratio	.6326808	.2181208	2.900598*
4. Concentration of industries	.05610603	.0228221	2.458403*
5. Workers in manufacturing sectors	.9116155	.1361579	6.695281*
6. Per-capita value of Agri -cultural produce	.0197469	.009326978	2.117188**
7. Agro processing units	.06375082	.009505	6.70708*

	SUM SQ	DEGREES OF FREEDOM	MEAN SQ
DUE TO REGRESSION	195.573	6	32.59549
ABOUT REGRESSION	10.40024	50	.208004
TOTAL	205.9732	56	3.678093

R-SQUARED	.94	CORRECTED R SQUARED : .94
F-TEST	156.7055*	STD ERROR OF REG : .4560754
		DURBIN-WATSON : 1.5347

\* Significant at 1% level.

\*\* Significant at 5% level.

\*\*\* Significant at 10% level.

of association with other explanatory variables such as concentration of industries and index of wage disparity. The index of wage disparity, metal- and chemical- based industries, average yield per hectare in agriculture, and per capita income have been excluded from the model on the plea that they do not contribute significantly to the explanatory power of the model.

The coefficients as obtained from the regression equation for 1981 are of variables: cropping intensity (2.25), workers in industrial sector (0.9116), land-man ratio (0.6326), concentration of industries (0.0561), agro processing industries (0.0197) and per capita value of agricultural produce (.0637). All the coefficients are statistically significant at 1% level except that of the variable, per capita value of agricultural product, which is found to be statistically significant at 5% level.

The statistically significant value of the variables, cropping intensity with per capita value of agricultural produce, confirms the previously observed trend that agricultural development is a main contributing factor in phenomenally high rate of urbanisation in Uttar Pradesh in 1981.<sup>9</sup> The association of agricultural development with urbanisation via industrialisation is also found to be affirmative as the coefficient of the variable agro-based industries was statistically significant in 1981 which was not significant in 1961 as well as 1971. Mills' and Becker's (1986:86) study of urbanisation in the context of Madhya Pradesh also shows a similar trend:

"Areas with growing marketed agricultural output are likely to specialise in grains and rice, crops which have benefited in recent decades from the technological advances of the Green Revolution. As the production grows, the need for a larger processing industry increases, as does demand for local goods and services associated with increased consumption of intermediate inputs in agriculture and increased final consumption by rural households".

The coefficients of both the variables, concentration of industries and workers in manufacturing sector, are significant which favour the previously observed trend that industrialisation prefers concentration of industries and both influence the urbanisation process.

The variable per capita income, which was not found to be contributing significantly in 1971 and 1981, leads us to two kinds of possibilities. First, this may happen in case of increase in income without an accompanying decline in agricultural employment, or increase in manufacturing trends to keep the level of urbanisation down (Mohan, 1983:40). Second, this phenomenon otherwise reflects the much supported characteristics of underdeveloped economies where the nature of distribution of income is so skewed that even increase in gross or per capita income does not influence the decision of the majority of the people, although Mills (1986:35) finds a correlation between real income growth and urbanisation, but such relationship could also be significant even if the rate of poverty is high. According to Gilbert and Guglar (1987) "development means reduction of poverty, not transfer of poverty from rural to urban areas".  
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One of the striking results of the model is that the value of the variable, index of wage disparity, is not found to be significant in 1981, which is against the Classical's argument that higher industrial wages will always lead to greater degree of migration and, therefore, urbanisation. It may happen in case of rise in agricultural wages or fall in industrial wages, both contributing to reduction in disparities between agricultural and industrial wages. Alternatively, it may also happen either due to rise in wages in tertiary sector influencing the decision of the mobility of population or better infrastructural facilities such as transport, medical and educational or even 'bright lights' of cities. The model used in the present context does maintain that analysing the contribution of such factors, although to understand the role of wage disparity in a developed and underdeveloped regions, a regression model has been fitted.

Table 4.7 presents regression results of certain selected indicators to understand the relationship of urbanisation with agricultural and industrial development in the developed Western region and relatively underdeveloped Eastern region. The indicators which have been considered in a log-linear multiple regression equations are: cropping intensity, which is an index of agricultural development, percentage of workers in manufacturing sector, which is a proxy of industrialisation and index of wage disparity, which determines the relative contribution of agricultural and industrial wages leading to urbanisation.

Table 4.7

Regression Results of the Selected Indicators for Eastern and Western Regions in U.P., 1961-1981.

Regression Coefficient	Constant	Cropping Intensity	Workers in Manufacturing Sector	Index of Wage Disparity		R <sup>2</sup>	F
				R	Corrected Test		
1.1961							
A. Western	.02804 (.054410)	2.2763 ** (13.0127)	.53312 ** (2.02153)	.03661 (1.348219)	.96	180.06	*
B. Eastern	-.04717 (-.054086)	1.84708 (6.35005)	1.43394 * (2.67105)	.05993 (1.326544)	.92	58.56	*
2.1971							
A. Western	.020161 (.050887)	2.116284 * (16.9622)	1.092697 * (5.102201)	.723705 * (2.143823)	.98	321.38	*
B. Eastern	-.032802 (-.050121)	1.96788 * (10.5713)	1.02324 * (3.07098)	-.391019 (-1.067561)	.95	104.77	*
3.1981							
A. Western	.045003 (.116368)	2.1748 * (17.94554)	.90203 * (4.4529)	.062195 * (2.7928)	.98	361.32	*
B. Eastern	-.013765	2.2369	.50622	-.313421	.97	187.62	*

Note:  
 \* denotes values are significant at 1% level  
 \*\* denotes values are significant at 5% level

The explanatory power of all the regression equations is extraordinarily high. Due to the small number of observations i.e. less than thirty and high value of  $R^2$ , the possibility of violation of the assumption of the normality of 'disturbance terms' as well as multicollinearity can not be ruled out. The model is quite helpful in understanding the nature of relationship of urbanisation with agricultural development and industrialisation rather than in identifying significant coefficients influencing urbanisation. From the regression results, it would be evident that both industrialisation and agricultural development have accelerated the process of urbanisation, although over the decades in Western region industrialisation has gained greater importance as far as contribution to urbanisation is concerned.

Table 4.8 presents results of the test of equality of the regression coefficients presented above using-t test of difference, where the null hypothesis is that of equal slopes as in the Western and the Eastern region. The exercise has been done to find out whether the regression coefficients reflect similar structure or that there is any significant difference in the characteristics of selected coefficients in Eastern and Western regions. However, the coefficients of the variables may be statistically significant or not significant in each individual model. The Table reveals that all the coefficients of the variables fitted in the context of the Western and the Eastern regions at the selected time period are similar except

Table - 4.8  
 Difference between Western and Eastern Regions Regression Coefficients for  
 the Selected Indicators.

TERM/YEAR	1961	1971	1981
	Similar (+, +)	Similar (+, +)	Similar (+, +)
1. Cropping Intensity			
2. Workers in Manufacturing Sector	Similar (+, +)	Similar (+, +)	Similar (+, +)
3. Index of Wage Disparity	Similar (+, +)	Significantly Different (+, -)	Significantly Different (+, -)

Note:- The coefficient of Index of Wage Disparity are found to be statistically different in 1971 & 1981 at 5% and 1% level.

that of index of wage disparity. The t-test of difference for the variable index of wage disparity is statistically significant in both the regions during 1971 and 1981. Therefore, the positive sign of the coefficient of index of wage disparity in the Western region reveals that differences in industrial and agricultural wages favourably influence the urbanisation process. The negative sign of the coefficient in the Eastern region exhibits that differences in agricultural and industrial wages discourage the urban process in this region. It has an important policy implication that in a relatively better developed region, wage disparity affects urbanisation positively, although in a relatively underdeveloped region wage disparity has no significant effect on urbanisation. Therefore, in a region which has crossed a critical level of development, wage differential may be used as a tool to promote or control urbanisation, whereas in an underdeveloped region, wages if used as incentives will not effect the migration decisions of the people. The conclusion, thus arrived at, questions the validity of the Classical argument in an underdeveloped region: that higher industrial wages will attract redundant unproductive labour from traditional agricultural sector to modern industrial sector which will develop the whole region. From the analysis, it appears that a certain critical level of agricultural development is essential to convert any traditional economy into an industrially developed region (Rondinelli, 1986:234).

In sum, the regression analysis for 1961, 1971 and 1981 reveals that in Uttar Pradesh agricultural development is

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contributing significantly to the process of urbanisation. This is evident from the emergence of new small and medium towns and also high rate of growth in lower order towns. The Western region, which is agriculturally developed, registers maximum number of small and medium towns functioning as big marketing centres for agriculturally rich hinterlands.

The foregoing analysis suggests that urbanisation-  
13 industrialisation dynamics is gradually becoming weaker. The released labour force from the rural areas will therefore be forced to join the growing army of unemployed urban labour force or work in menial unproductive jobs in unorganised and informal sector for their subsistence. Even the growth of tertiary sector is more than proportionate to the growth of manufacturing sector which is an undesirable condition to build a strong economic base of urban centres (Dasgupta, 1987:340). Therefore, as is evident from the analysis, rapid urbanisation in Uttar Pradesh is hazardous and the population released from agriculture is unable to gain employment in industrial sector which constitutes the economic base of the towns. As a result, the growth of population in towns in U.P. does not reflect development dynamics as expected. As a matter of fact, it confirms one of the few hypotheses proposed by Kundu (1988) regarding the pattern of urban development taking place in U.P. The kind of industrialisation as experienced in U.P. during the recent past appears to have been favouring the small sized industrial units which is resulting in larger increase in

'number' rather than generation of employment or value added in industries( Kundu, 1988:101).

Presumably the prevalent urban process, therefore, might be following one of the development patterns in which economies of many secondary and intermediate sized cities are inextricably linked with the productivity of agriculture in their region (Rondinelli, 1983 ). These urban areas serve as marketing centres for agricultural output and better living places for rural-rich planning for outmigration to avail of the basic amenities of the cities. Probably, these small cities and towns, instead of playing the role of 'producers' centres, function as 'merchant' centres and 'consumer' centres reflecting least or no dynamic impulse for growth. This development pattern does not guarantee employment opportunities to the displaced labour force from agriculture in urban industrial units.

Thus, one can safely conclude that poverty-induced or technology-induced migration from agriculture might have been one of the factors chiefly responsible for the striking growth rate of population at the lower rungs of urban hierarchy. This tendency of job seeking out migration is expected to result in a larger concentration of population at the higher rungs of urban hierarchy in the long run.

## Appendix 4.1

Dependent Variables :

$y_1$  = Urban population in absolute numbers.

$y_2$  = Population of the Towns having inhabitant 20,000 & more.

$y_3$  = Percentage of urban population to total population.

$y_4$  = Percentage population of towns having inhabitants 20,000 or more to total population of a district.

Independent Variables :

$x_1$  = Value added per industrial worker.

$x_2$  = Average yield per hectare in agriculture.

$x_3$  = Cropping intensity

$x_4$  = Land-man ratio.

$x_5$  = Per-capita income.

$x_6$  = Concentration of industries.

$x_7$  = Workers in manufacturing sector.

$x_8$  = Index of wage disparity.

$x_9$  = Agro processing units.

$x_{10}$  = Metal and chemical based industries.

$x_{11}$  = Per-capita value of agricultural produce.

Notes:

## Chapter 4

1. It is argued by Hoselitz (1960) that development of cities is a necessary condition for economic development. The distinction of 'generative' and 'parasitic' cities is based on their positive or negative contribution to development process. After a long discussion Hoselitz reached to a conclusion that the parasitism or dynamism of a city depends upon the particular constellation of economic and non economic factors.
2. To put it in Mellors (1976 : 14) words :

"First, because food grains make up bulk of marginal expenditures among the poorer classes, agriculture provides the physical goods to support increased employment and higher wage earnings. In otherwords, the agricultural sector is a critical source of wage goods - goods purchased with wages. And it provides much of the increase in employment - directly through raising agricultural production, indirectly through the stimulus of increased income of the cultivator class and the demand effects of the consequent expenditure".

3. The multiple regression model considers the following functional forms :

$$\text{Log } Y_j = A + \sum_{i=1}^N B_i \text{Log } X_i$$

Where,  $Y_j (j=1,2,3,4)$

The first model assumes additive relationship among the explanatory variables whereas the second model considers multiplicative effect of the explanatory variables on urbanisation.

4. Mohan (1983 : 40) "Increase in income without accompanying declines in agricultural employment or increases in manufacturing tends to keep urbanisation down". Urbanisation may be observed either in case of rapidly developing manufacturing sector with the existence of a subsistence agricultural sector or in case of increase in agricultural incomes leading to introduction of labour displacing techniques.
5. Income from the five commodity sectors is as follows : (i) Agriculture (ii) Mining and quarrying (iii) Manufacturing (iv) Fishing (v) Forestry
6. In an interstate analysis of urbanisation and development, Pandey (1977 : 273) also finds logarithmic function from to be able to explain relatively larger variation in urbanisation.

7. According to Engel's law, increase in income is more than proportionately spent on industrial products and services because of commonly observed low - income elasticities of food demand and high-income elasticities of industrial goods and service demands.
8. Sovani (1966 : 8) questions that during the colonial rule almost all Asian countries experienced increasing pressure on land although rapid urbanisation in these countries is observed in previous two decades. According to him if rural pressure is a new factor influencing urbanisation then why central and South American countries which have no pressure on land have not resulted in "under-urbanisation" instead of "over-urbanisation".  
In the context of India, Pandey (1977:273) also places doubt on the rural-pressure theory of urbanisation on statistical support.
9. In a study of urbanisation and city characteristics in the context of Madhya Pradesh Mills and Becker (1986 : 86) find through statistical rigour that cities with a dynamic hinterland experience relatively rapid urban growth.
10. Gilbert and Gugler (1987 : 9-10) provide evidence of high degree of income inequality among 15 developing countries as compared to developed countries. In 1964-65 in India top 35% of the household income was shared by 10% households and 60% of the households in lowest groups shared only 23.90% of the total household income which signifies the severity of income inequality existing in India.
11. Mohan and Pant (1982 : 10) point out that technological change may increase the demand for agricultural labour in the first instance. But with income increases and mechanisation this may not continue for a long combination of demand pull in richer areas and push in poor areas could appear to have caused the noted acceleration in urbanisation. To understand dynamics of development the urban growth must be analysed whether it is due to immiserisation or because technical change.
12. Sampat (1972 : 199) considered certain indicators of urbanisation and agriculturalism for an inter-state analysis on 1961 data base and concluded that there exists no correlation between the degree of urbanisation and degree of agriculturalism.
13. According to the regression coefficients worked out by Mohan (1983 : 45) that it takes about 7 agricultural jobs to generate 1 urban job. Therefore, any displacement of labour from agriculture must take place when the jobs in non-agricultural sector are increased in this proportion.

## CHAPTER - 5

## CONCLUSION

5.1 Conclusions:

For urbanisation to play a major role in the development process, the process and emerging patterns of urbanisation should be viewed in the context of total development. There is usually a direct relationship between development (for that matter industrialisation) and urbanisation process. However, it assumes distinctive and rather complicated form in developing countries like India. Many developing countries are experiencing a kind of urbanisation which does not necessarily result in economic development. Nevertheless growth of economic sectors affects the rate of urbanisation considerably. The development of agriculture and industry gives impetus to the demand of urban based goods and service. People migrate from rural to urban areas as a result of which new urban centres emerge and the existing one tend to expand. Urbanisation is generally considered as a synthetic indicator of economic progress. Therefore, to understand the dynamic role of cities and towns in generating economic momentum, issues related to economic base, production structure and their linkages with the countryside were raised in this study. However, agreeing fully with Marx (1971), Castell (1977) and Ranadive (1987), the process of urbanisation in the context of India as well as Uttar Pradesh has been analysed using historical approach.

The beginning of the debate on the urban bias nature of

economic policies seems to have emerged from the Classical's argument that industry benefits more than does agriculture due to the gains from sepecialisation of the labour.

The Marginalists were convinced that any 'bias' (including urban bias also) in any economic system can be a temporary phenomenon because of their belief that every economic system automatically achieve equilibirium in long run. The 'urban bias' exists in Marginalists theory because of the lack of institutional theory and their emphasis on automatic equilibrium as against cumulative causation and divergence. The Marxian views about rural-urban relations may be explained using Hoselitz's distinction between generative and parasitic nature of cities. The urban bias tendencies are prevalent in different economic systems due to the existence of parasitic cities which extract surpluses from rural areas and use it for conspicuous consumption.

In the early stage of development studies, the pattern of urbanisation and rural-urban relation in Third World countries were analysed by the social scientists who had a Western-centred historical perspective. Therefore, they prescribed economic policies in the Third World countries which were urban biased. Schickele (1968), Baloh (1966) and Dumont (1966) were the first ones who empirically confirmed such a trend in the late fifties and the early sixties.

In the late sixties and seventies three development economists-Lipton (1977a), Mamalakis(1969), and Mitra (1977) put forward general theories which they claimed had

provided explanations for slow economic progress in the Third World due to prevailing rural-urban relationship. However, there are substantial differences among Lipton (1977a), Mamalakis (1969), and Mitra (1977) in their focus and approach.

Lipton (1977a), the main proponent of urban bias held it responsible for existing imbalances and underdevelopment in developing countries. The urban interests and urban biased ideology, according to him dominate policy making. Therefore, resource allocations clearly reflect urban priorities rather than equity or efficiency in most of the countries. His perception of urban bias as a major hinderance for economic development has been criticised by many scholars such as Seers (1978), Griffin (1977) and Byres (1979) on the grounds (a) division of rural class/sector and urban class/sector is unrealistic, (b) Lipton's urban bias evidence rests too heavily on India. Moreover, it is interesting to note that Lipton (1977) and Mitra (1977) worked at the same time considering the same politico-economic model though the former reached a conclusion that India is urban biased, and the latter, rural biased.

The main shortcoming of Lipton's urban bias model as pointed out by a number of scholars (Seers 1978; Rao; 1978; Byres 1979) is that it did not seriously consider the historical factors which sharpened the rural urban divide, particularly in the Third World countries. Moreover, although Lipton sees the existence of a socially relevant gap between the rural and urban people from a new angle, the question which still remains

unanswered is how to explain the existence of that gap ?. It emphasises on the existing need of country - specific models, which may explain rural-urban divide, to be helpful in building up a general model in the global context. The Indian case was considered in this study.

According to Marx (1971) the history of ancient India was a kind of undifferentiated unity of town and country. It happened due to existing techno-economic unity between agriculture and industry . Marx termed it as 'Asiatic mode of production'.

During the Mughal India there was no sizeable urban population but towns of those days were economically and culturally significant. The agrarian system during the Mughals period had little tendency to change or increase production. Manufacturing sector concentrated more on the production of luxury goods than commodity production. Therfore, the age old Asiatic mode of production started corroding, though the surplus extracted from countryside were funnelled back into the regional economy reinforcing urbanisation and industrialisation.

The rural-urban dichotomy that exists today in India is said to be a product of colonial rule, which ruined the Asiatic mode of production imposing on it the colonial mode of production. Moreover, India was incorporated into the world capitalist system keeping it in a dependent position. India was finally converted from being an exporter to an importer of manufacturing commodities by coercive colonial state

interventions and not by laissez-faire. This led to the process of de-industrialisation and de-urbanisation disrupting indigenous production activity of urban centres and their geographical specialisation. The port towns recorded high growth; acting as foci of suction mechanism resulting in general decay in their immediate hinterlands. The dynamic city of Lucknow experienced a process of de-urbanisation during the British Raj. In fact, in India, what has been called 'proto-industrialisation', which might have led to a typical progressive industrialisation could not grow in its soil due to colonial impact.

The constricted industrial base in colonial cities without creating productive jobs led to tertiarization. In lieu of the conclusion, it may be said that superimposed colonial mode of production on the one hand developed metropolitan capitalism, on the other hand it created conditions for sustaining pre-capitalist characteristics of production at the periphery.

The post independence period in India was the period of economic planning away from those which were pursued by the colonial government. Pandit Nehru, the first Prime Minister of India, emphasised on the need for industrialisation in which he involved the state to undertake large scale industrialisation. The Second Industrial Policy Resolution, 1956 identified the importance of adopting 'a socialist pattern of society' by ensuring social justice.

Nehru, in 1933, thought that in India only a revolutionary plan could solve the two related questions of land

and industry. Yet, in 1939, he accepted that economic planning, even apart from socialism would lead to some form of balance between the two. Thus, Nehru understood socialism in a mixed economy framework in which a gradual enhancement of the state's economic and political power would take place without changing the ownership pattern. As a result, a glaring dichotomic situation related to agriculture and industry still exists in India. There exists sufficient empirical support in various studies that disparity between agriculture and industry is growing even today. The growing economic disparities and strengthening rural-urban divide posed a pertinent question for a detailed analysis in this study, which is : "where have things gone wrong?"

The growth in urban population has remained subject to erratic fluctuations since 1901 till 1981. Moreover, U.P. observed (60.62%) a remarkably high urban growth rate during 1971-1981. There is an increasing trend in the movement of towns. A tendency towards developing a top heavy structure is evident from the high rate of movement of towns in top three classes. Approximately 15% of the total towns shared 70% of the total population in 1981. A large number of towns, nevertheless, were concentrated towards the average value of population growth rate during 1961-1971. However, a clearcut tendency was noticed in the towns recording a growth rate different from the state average during 1971-1981. Such divergence is more explicit in the relatively better developed Western, Central, and Eastern regions rather than in Hill or Bundelkhand regions. The Western

region followed by Eastern region shared maximum towns having growth rate above the state average at time periods 1961, 1971 and 1981. The Eastern region however, is said to have a tendency of unbalanced human settlement system than the Western region due to remarkable rise in the number of such towns.

The spatial characteristics of urbanisation were also understood in terms of the concentration of towns in different regions of the state. The data in this regard revealed that the Eastern region observed a remarkably high rise. The Central region observed steady increase where as Hill and Bundelkhand regions registered the declining trend during the period of study. However, Class one towns were heavily concentrated in the Western region followed by the Eastern region. In addition, it was also clear that the movement of towns from Class IV and V towards Class III in the Western region was similar to the movement of Class III and Class II towards Class V. In the Eastern region, the movement of towns from Class III towards Class I and Class II was much faster than the movement of Class IV and Class V towards Class III. There is sufficient data support to safely conclude that the small and medium towns of the Western region are more dynamic than the towns of the Eastern region, though on the one hand, the Western region exhibits the top heavy structure of urban settlement, on the other hand a highly unbalanced pattern of urban settlement is observed in the Eastern region. Emergence of a large number of small and medium size towns, indicates that Uttar Pradesh is attaining a sound urban settlement pattern. However, before

reaching such a conclusion, analysis of economic base of big, small/medium as well as rapidly growing towns was done to determine their 'generative' or 'parasitic' role in the process of economic development.

The analysis of economic activities revealed that there was a high dominance of service towns, though a declining trend of multi-functional service towns was recorded. Therefore, service as a major economic activity was unable to develop complementary relations with other activities, thus, prohibiting dynamic growth in towns to a great extent. Similarly, from a large share of mono-functional and bi-functional towns it was inferred that primary activities in towns find it difficult to become complementary with other economic activities, and therefore, restrict dynamic growth in towns. A large number of towns specialising in primary activities exhibited that a sizeable number of 'expand villages' having least urban characteristics were treated as urban by the Census. A decline in mono-functional and bi-functional towns vis-a-vis rise in multi-functional Industrial towns indicated that industrial activity as a major economic activity to sustain and promote dynamic growth in towns. The multi-functional towns having a combination of primary activity with industry and commerce increased whereas there was a decline in multi-functional towns having primary activities with commerce and service, with industrial activities and primary activities declined. The analysis of towns observing higher than the national average growth rate showed that mono-functional towns having service or primary activities were over

dominated. Moreover, there was a decline in bi-functional towns having economic activities such as industry and service whereas towns having commerce and service emerged during 1971-1981. The overall analysis of the functional characteristics revealed overwhelming numerical predominance of either service or primary activity towns in Uttar Pradesh. It supported one of Mitra's findings that urban growth has weak 'pull' factors which is related with the expansion of industries, therefore, the towns of U.P. may not be called as generative towns. The increasing ratio for towns having primary activities prohibits economic and industrial expansion in urban areas. Therefore, the declining ratio of towns having industrial economic activity either as mono-, bi-, or multi-functional activity seems to be opposing the dynamic growth in cities.

The urbanisation-industrialisation dynamics as analysed for Class I towns and in different regions in U.P. showed that there is a considerable decline of KAVAL towns in terms of their degree of industrialisation and urbanisation, more so in two of the largest cities-Lucknow and Kanpur. However, medium-sized towns - Hardwar and Mirzapur-registered significant improvement in their values of index of industrialisation and index of urbanisation. The rank-order correlation coefficient of towns revealed a weak relationship between industrialisation and urbanisation during the study period i.e. 1961-1981. The cities which are not industrially developed are urbanising rapidly. Therefore, sustenance of such high urban growth in towns jeopardises their functions as growth centres in the process of

economic development. The regional analysis of association between industrialisation and urbanisation depicted strong, statistically significant, and positive association in the Western region followed by the Eastern region. The nature of relationship in these two regions was found to be different because in the Eastern region it declined whereas in the Western region it improved from 1961-1981. The analysis leads to a conclusion that agricultural development is alleviating industrialisation-led-urbanisation in the Western region. Due to decentralisation of industries from Kanpur and Lucknow towards Unnao and Hardoi respectively as well as industrialisation efforts in Rae Bareilly, a declining association between index of industrialisation and urbanisation was observed. However no statistically significant values of the coefficients in Hill as well as Bundelkhand regions were found because of these regions being negligibly industrialised.

Before analysing occupational compositions work participation rates in 28 big cities as well as in different regions were investigated. A remarkably high rate of decline in work participation rate (ranging between 10% & 15%) was observed over a period from 1901-1981. Moreover, in no city in 1981, work participation rate was at par with that of 1901. The declining trend in work participation with increasing growth of population in U.P. implies that each urban worker is supporting a larger number of dependents than before. The analysis of work participation rate in rural and urban areas in U.P. revealed that in the Western region there was a declining work participation

rate in rural areas along with an increase in urban areas, a step towards transformation from rural-agricultural to urban-industrial economy. The Central region observed a reverse trend of that of Western region whereas Eastern, Hill and Bundelkhand regions were unable to generate employment opportunities in proportion to the population growth either in rural or urban areas.

On the basis of the town-wise analysis of workers, it was found that in the towns of Uttar Pradesh no transformation in occupational structure has taken place. An increasing dominance of urban workers in agricultural activities was recorded (more particularly in 1981) due to emergence of new towns having weak economic base of economic activities. However, heavy concentration of workers in tertiary sector from 1961-1981 consistently points out the existence of structural rigidity in the economic system of towns which is unable to absorb more and more labour in productive manufacturing sector. The sectoral composition of workers in different regions during 1961-1981 also showed a similar trend, that no positive structural transformation has taken place in urban areas of U.P.

The variations in the distribution of workers in different industrial categories in U.P. considerably declined during 1961-1981. However, increasing value of coefficient of variations was recorded for the workers in agricultural activities in Western region and manufacturing activities in the Hill as well as Eastern regions. It happened due to emergence of a

large number of small and medium sized towns predominantly having weak economic base in the Western region and uneven growth of manufacturing activities in the Eastern region.

The increasing share of primary sector and stagnating manufacturing sector with highly dominated tertiary sector showed that the economy of U.P. is still underdeveloped. It leads us to conclude that modern industrialisation has failed to function as a catalyst in the economy in favour of non-agricultural activities ; therefore perpetuating underdevelopment in the state.

Urbanisation is treated as an indicator of economic development. To determine relative contribution of agricultural and industrial development on urbanisation, the technique of regression analysis has been applied. The log-linear regression model provided the best fit results when total urban population of the district was considered as dependent variable with selected indicators of development as independent variables at all time periods; the following conclusions were arrived at:

From the regression equation of the time period 1961, it appeared that Government's emphasis on establishment of heavy industries in the Second Five Year Plan resulted in a spurt of metal-and chemical-based industries contributing significantly to the process of urbanisation. Increasing per capita income accelerated process of industrialisation leading to higher rate of urbanisation. Similarly, a change in workers in manufacturing sector was able to bring a proportionate change in urbanisation.

On the agricultural side, a positive coefficient of the variable, Cropping intensity, signified that either higher demand for non-food items resulting from higher agricultural incomes or greater degree of mechanisation was activating the process of urbanisation. The significant regression coefficient of the value of agricultural produce was also contributing in the process of urbanisation. However, the negative value of the regression coefficient of the variable-index of wage disparity suggested that difference in agricultural wages over industrial wages was motivating people to stay in rural areas rather than migrate.

In 1971, the regression coefficients of the variables-cropping intensity, land-man ratio, value of agricultural produce, concentration of industries, workers in manufacturing sector and metal-and chemical-based industries were statistically significant. The regression results revealed that in 1971 the coefficient of the variable, cropping intensity, was contributing quite significantly in the process of urbanisation, because one percent change in the value of the coefficient was able to bring about 2.10 % change in urban population. However, the contribution of 'push' factors over the 'pull' factors became noticeable in 1971 due to a decline in the value of the regression coefficient of the variable-workers in manufacturing sector. A statistically significant regression coefficient of the variable, land-man ratio, lends credence to Sovani's (1966) argument that existence of over-population on agricultural land is not a major cause of rapid urbanisation in the developing countries. However, statistically significant regression

coefficients of the variables, concentration of industries and metal-and chemical-based industries indicated that advantages of industrial agglomerations do influence the pace of industrialisation, which in turn, influence urbanisation positively. In the 1981 model the significant regression coefficients of the variables were; cropping intensity, land-man ratio, value of agricultural produce, concentration of industries, workers in manufacturing sector and agro-processing industries.

All the significant variables of 1981 model were also contributing positively in the process of urbanisation in either 1961 or in 1971 except the variable agro-processing industries. The positive and significant regression coefficient of the variable agro-processing industries revealed that areas with growing marketable agricultural surplus are promoting growth of small and medium size towns functioning as agro-processing industries and marketing places for agricultural produce.

The statistically not significant value of the regression coefficient, per capita income in 1971 and 1981 led our attention towards two possibilities. First, increase in income would have taken place without accompanying decline in agriculture employment or increase in manufacturing activities might have kept the level of urbanisation down due to the use of capital intensive technologies. Second, the nature of distribution of income would have been so skewed (a typical characteristic of under developed countries) that even increase

in gross per capita income would not have influenced the decision of the majority of the people.

To analyse the effect of the variable - index of wage disparity- on urbanisation assuming the effect of the variable may be different in different regions, regressing equations taking selected indicators for the Western and Eastern regions have been fitted. A statistically significant regression coefficient of the variable, the index of wage disparity in the Eastern and the Western regions revealed that during 1971 and 1981 differences in industrial and agricultural wages influenced urbanisation process favourably. The negative sign of the regression coefficient in the Eastern region exhibited that the difference in agricultural and industrial wages has been unfavourable to the urban process in the regions during 1971 and 1981. The results lead us to an important policy implication that in a relatively better developed region the wage disparity affects urbanisation positively, although in a relatively underdeveloped region wage disparity has no effect on urbanisation. Therefore, in a region which has crossed critical level of development' wage differential may be used as a tool to promote or control urbanisation, whereas in an underdeveloped region wages if used as incentives will not affect the migration decision of the people.

The regression analysis for 1961, 1971 and 1981 reveals that in U.P. agricultural development is contributing significantly to the process of urbanisation. As a result, emergence of a large number of new, small, and medium sized towns

or high rate of growth in lower order towns is observed. The Western region which is agriculturally developed registers growth of a large number of small and medium towns functioning as big marketing centres for agriculturally rich hinterlands. The analysis also suggested that the urbanisation-industrialisation dynamics is becoming weaker. It supported one of the findings of Kundu (1988:101) regarding industrialisation in U.P., which has favoured small sized industrial units, resulting in larger increase in number than generation of employment or value added in industries.

### 5.2 Policy Implications:

The recently published report of National Commission on Urbanisation (1988:) envisaged a positive role of urbanisation in development if "the cities are economically viable and capable of generating economic growth in a sustained manner". According to the Commission, therefore, explicit 'state intervention' is necessary to modify the course of urbanisation in future. The Commission also views that replacement of ad hoc policies is necessary by a consistent, logical and systematic policy which can sustain over a long period of time.

The following are the intervention areas which have been identified by the Commission to achieve balanced national and urban development :

1. It is necessary to develop predominant urban centres in every district to curb urbanisation from becoming a matter of population distribution than healthy generation of non-agricultural jobs.
2. The urban centres will become centres of transference of rural poverty to urban or semi-urban areas without any improvement in the quality of life. Therefore, generation of gainful employment to the new migrants is imperative.
3. The urbanisation strategy should aim at promoting both agricultural development and industrial development to ensure positive role of cities in the challenging task of generating rapid economic growth.

4. To fulfill twin objectives of planning, equity and efficiency for regional balance and harmonious development of rural and urban areas, urban development should not be at the cost of rural development.

Therefore to translate these broad objectives into reality the Commission identifies a number of cities and towns which would receive priority in the development plans both at central and state level.

In view of the above mentioned guidelines, using various statistical criteria the Commission finally selected 329 GEMs (Generator of Economic Momentum) towns besides 49 Spatial Priority Urbanisation Regions (SPURs) throughout the country. These regions cut across state boundaries. The Commission recommended that any future strategy for urbanisation must ensure adequate investment in selected growth centres and regions so that, over a period of time they develop to a level capable of self sustaining economic growth and offer avenues of employment and earnings. All the 329 GEMs were distributed between National Priority Cities (NPCs) and State Priority Cities (SFCs) adopting the following methodology :

- (a) All the State, Union Territory and Capital cities were designated National Priority Cities-regardless of their population size ;
- (b) All the cities with a population of one million (ten lakhs) and over have been classified as NPCs in view of

their vital role in generating economic growth,

(c) Potential million plus cities by the year 2001 have been pleaded for positive intervention policies as NPCs;

(d) The Commission designated as NPCs a number of cities which are having potential of generating economic growth. However, it considered not only economic activity but also administrative and socio-cultural factors.

(e) All GEMs other than NPCs have been classified as State Priority Cities (SPCs)

(i) The Commission selected class I cities as GEMs on the basis of proportion of workers in manufacturing sector in 1981, other than class I cities on the functional classification of towns in 1961 and 1971.

(ii) Cities which have recorded higher than national average figures both in the decades of 1961-1971 and 1971-1981 have been considered as having evidence of population growth momentum (PGM), treating PGM as proxy of GEM.

(iii) The headquarters of all the districts, which have 30% of the total population as urban in 1981 have been considered as SPCs. The selection is based on the assumption that such districts have fairly sizeable urban infrastructure which has to be backed-up for realising the growth potential.

(iv) To discourage migration from backward rural

areas to the big cities and a need to develop regional growth centres, the headquarters of all districts with a rural population more than 90% were classified as SPCs.

The details of the identified urban growth centres and urban priority regions by the Commission in Uttar Pradesh are given in the appendix of this chapter. A national mapping of these towns is also being given in the appendix.

An assessment of the suitability of the interventions suggested by the Commission in the context of U.P., keeping in view, our analysis of urbanisation pattern is essential. First, the Commission has very rightly identified that not only employment generation but also provision of gainful employment to the incoming migrants to the cities is extremely essential because the cities in U.P. are observing a declining work participation rate. The productive employment generation will automatically take care of the improvement in the quality of life in urban environment by restricting transference of rural poverty in urban areas. Second, the Commission's strong recommendation for rejecting policies based on the misinterpreted premise that urbanisation is synonymous with industrialisation has resulted in creation of towns around new industries in wilderness areas, where neither the infrastructure nor the available natural resources permit sustained growth. There are quite a number of such centres in U.P. like Renukut, Chunar, Robertsganj, Muni-Ki-Reti etc. Moreover, the present study also showed that the association of urbanisation and industrialisation is becoming

weaker in all the regions of U.P. due to the decentralisation policies regarding industrialisation. It has resulted in establishment of industries in small urban centres whereas increasing rate of population has been recorded in bigger urban centres. Therefore, there is a need for a detailed examination of economic urban activities which can be helpful in formulating and recommending realistic city-specific policies for industrial development. A tentative classification of activities has also been provided in this chapter. Fourth, the Commission, however, incorporated industrial as well as agricultural development to achieve balanced urban development but has failed to identify the factors which affect the process of urbanisation considerably. The present study has identified such factors which may be affecting urbanisation in the context of U.P. The finding of the study which have been presented in Chapter III are revealing for developing defective interventions. Fifth, the methodology adopted by the Commission for identifying headquarters of the districts as growth centres (either to prevent potential migrants from the predominantly rural districts or to promote development in districts showing population growth rate above than the national population growth rate) completely spares districts having 69% to 90% rural population or having 11% to 30% urban population. A large number of districts which are agriculturally prosperous and have sufficiently strong infrastructure such as Rampur, Mainpuri, Etawah, Etah and Farukhabad in the Western region; Banda, Hamirpur, Jalaun, Lalitpur in migration sensitive backward Bundelkhand region, to name a few, have been neglected by the Commission.

Therefore this special treatment to certain towns does not seem to ensure the fulfillment of the main objective as identified by the Commission- 'balanced economic development by converting towns as vibrant centres for economic growth'. As the Commission considers the technique of selection of towns preliminary in nature, a rigorous excercise by the Planning Commission as well as the State Government is imperative to develop a better criterion for identification of towns for achieving equality and efficiency norm of planning. However, a better recommendation by the Commission would have been by classifying all towns in different priority-order categories, considering their role in economic development. The interventions will be expected to yield better results if towns attaining top most priority are given support in the first phase, towns falling in the second order priority class are considered in the second phase, while ensuring adequate back-up support to the towns of top most priority and so on. The selection of the headquarters of the districts, which is proposed by the Commission (based on the assumption that urban population growth is proxy to economic growth), may be linked with their values attained on the index of industrialisation and the index of urbanisation. The district-wise index of non-primary economic activities in towns may also be prepared because the Census Report of 1981 has provided information of workers engaged in nine traditional industrial categories of workers recently.

One of the main findings of this study was that most of the towns in U.P. are Service towns or Primary Activity towns showing least indications of developing complementarity with other economic activities. Moreover, declining work participation rate along with increasing share of primary sector, stagnating manufacturing sector dominated by tertiary sector point towards the existence of structural rigidities in the economic system of towns. Some of the agriculturally developed regions in U.P. are also demanding rapid industrialisation so that their surpluses may be invested in more productive channels. Keeping in mind these bottlenecks in development, a broad classification of economic activities is attempted. Deliberate and selective policies to promote such activities in different towns according to their existing economic base is likely to bring structural changes in the economy at regional as well as national level. However, this is suggested as a starting point which supposedly may help developing a more disaggregated classification of economic activities.

The economic activities have been distinguished between those which are supposed to produce mainly to satisfy local demand in cities and its immediate hinterlands and those which serve mainly national and international market. The economic activities serving local demand in cities comprise of basic production, service and infrastructure in Group I and Group II and Group III respectively. The other economic activities which generally serve national and international market are divided in three sub parts. First, the one which includes

industries that are dependent on specific and often relatively immobile resources and are generally found at limited number of locations form Group IV. Second, industries that are included in the Groups V, VI and VII comprise the heart of manufacturing activities in towns. The Group V constitutes the traditional industries, Group VI contains advanced capital-intensive industries and Group VII identifies modern economic activities e.g. Computers, electronic components etc. Third, and final group of industries containing economic activities in which there is a regional component to demand for providing scope for regional centres to attract these industries constitute Group VIII. A detailed description of the industries included in various groups is given below :

Group I : Basic production activities

Bread and Flour confectionary; Milk and milk products; Horticulture; Construction material.

Group II : Basic service activities

Miscellaneous intercity transport; wholeselling; Retailing; Hotels; Restaurants; Public guest houses; Clubs; Catering; Hairdressing; Private services; Laundries; Dry cleaning; Vehicle repairs.

Group III : Basic infrastructural facilities

Railways; Roadways; Education; Medical; Local Government Services.

Group IV : City specific/location specific industries

Fishing, Mining and Quarrying; Petroleum and Natural Gas; Fruit and vegetables; Sugar; Tobacco; General Chemicals; All base metals; Pottery; Timber, Shipbuilding and other port activities.

Group V : Traditional/Labour-intensive industries

Confectionary products; Paints; Soaps and Detergents; Home utensils; Bolt, Nut, Screws; Cans and metal boxes; Jewellery and precious metal boxes; Jewellery and precious metals; Weaving and Spinning; Woollens; Hosiery; Carpets; Ready-made textile products; Leather, Footwear; Wooden production; Paper and Boards; Packaging; Stationary; Rubber; Miscellaneous manufacturing.

Group VI : Advanced/Capital-intensive heavy industries

Agricultural machinery; Industrial engines; Pumps and Valves; Textile machinery; Construction and earth moving equipment; Mechanical engineering products; Electrical appliances; Tractors and other motor vehicles; Plastic products; Fertilisers, Watches; Locomotives and railway tract equipments;

Group VII : Modern industries

Pharmaceutical chemicals; Machine tools; Photographic and document copying; Surgical instruments and appliances; Computers; Telegraph and Telephone apparatus; Scientific and industrial instruments; Electrical machinery; Radio and electrical components; Aerospace equipment.

Group VIII : Region specific industries

Brewing and malting; Soft drinks; Painting and publishing of newspapers etc; Local products of specialisation .

Appendix 5.2.1

A : NATIONAL PRIORITY CITIES, STATE PRIORITY CITIES WITH THEIR CLASS AND ADMINISTRATIVE STATUS(1981-CENSUS).

National/State Priority Cities	Class of Town	Administrative Status	Urban Population (%Decadal Growth)
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## NPCs

1. Lucknow	I	M.C.	1,007,604 (23.79)
2. Kanpur	I	M.C.	1,639,064 (28.53)
3. Varanasi	I	M.C.	797,162 (25.50)
4. Allahabad	I	M.C.	650,070 (26.71)
5. Agra	I	M.C.	747,318 (17.76)
6. Murrut	I	M.C.	536,615 (44.34)
7. Aligarh	I	M.B.(I)	320,861 (27.17)

## SPCs

8. Sitapur	I	M.B.(I)	101,210 (51.71)
9. Rae Bareli	II	M.B.(I)	89,697 (131.39)
10.Fatehpur	II	M.B.(II)	84,831 (55.18)
11.Unnao	II	M.B.(I)	75,983 (98.93)
12.Barabanki	II	M.B.	62,216 (43.40)
13.Lakhimpurkheri	II	M.B.(II)	61,003 (39.43)
14.Jaunpur	I	M.B.(I)	105,140 (30.23)
15.Gorakhpur	I	M.C.	307,501 (33.17)
16.Bahraich	II	M.B.(I)	99,889 (35.11)
17.Gonda	II	M.B.(II)	70,847 (34.53)
18.Basti	II	M.B.(I)	69,465 (39.95)
19.Azamgarh	II	M.B.(I)	66,523

20. Ballia	VI	M.B. (II)	(62.40) 61,704 (31.00)
21. Cazipur	II	M.B. (II)	60,725 (33.07)
22. Deoria	II	M.B. (I)	55,720 (46.0)
23. Bala-Pratapgarh	III	M.B. (II)	49,932 (78.9)
24. Sultanpur	III	M.B. (II)	48,782 (50.89)
25. Bareilly	I	M.C.	449,425 (37.82)
26. Moradabad	I	M.B. (I)	345,350 (26.66)
27. Ghaziabad	I	M.B. (I)	287,170 (124.88)
28. Muzaffarnagar	I	M.B. (I)	171,816 (49.69)
29. Mathura	I	M.B. (I)	159,498 (13.81)
30. Hardwar	I	M.B. (I)	145,946 (59.73)
31. Bulandshar	I	M.B. (I)	103,436 (73.83)
32. Dehradun	I	M.B. (I)	293,010 (32.84)
33. Haldwani cum Kathgodam	II	M.B. (I)	77,300 (48.07)
34. Kishikesh	III	M.B. (I)	29,145 (65.16)
35. Nainital	III	M.B. (I)	26,095 (3.68)
36. Almora	III	M.B. (I)	22,705 (8.74)
37. Mussoorie	IV	M.B. (I)	18,233 (-10.57)
38. Pithoragarh	IV	M.B. (II)	17,657 (47.86)
39. Tehri-garhwal	IV	M.B. (IV)	12,249 (153.52)
40. Uttar-Kashi	IV	M.B. (IV)	10,043 (66.83)
41. Chamoli	V	M.B. (IV)	9,709 (52.80)
42. Narendranagar	VI	M.B. (IV)	3,596 (50.46)
43. Jhansi	I	M.B. (I)	284,141 (40.28)

M.C. = Municipal Corporation

M.B. = Municipal Board

B: Spatial Priority Urbanisation Regions ( SPURS ) Covering Some Part of Uttar Pradesh.

1. Jhansi - Hamirpur - Chaturpur - Sagar - Lalitpur
2. Almora - Nainital - Naldwani - Pilibhit
3. Haridwar - Rishikesh - Dehradun - Uttrakashi
4. Kanpur - Lucknow - Faizabad - Gorakhpur
5. Varanasi - Gajipur - Ballia

Note : The towns and cities listed here as nodal points are not necessarily NFCs and SPCs.

## Distribution Of National & State Priority Cities In Uttar Pradesh



SOURCE : NATIONAL COMMISSION ON URBANISATION, 1988

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